

FLORA RUSTICA:

EXHIBITING

ACCURATE FIGURES OF SUCH PLANTS AS ARE
EITHER USEFUL OR INJURIOUS IN

HUSBANDRY.

DRAWN AND ENGRAVED BY

FREDERICK P. NODDER,

BOTANIC PAINTER TO HER MAJESTY,

AND COLOURED UNDER HIS INSPECTION.

WITH

SCIENTIFIC CHARACTERS, POPULAR DESCRIPTIONS,
AND USEFUL OBSERVATIONS,

BY

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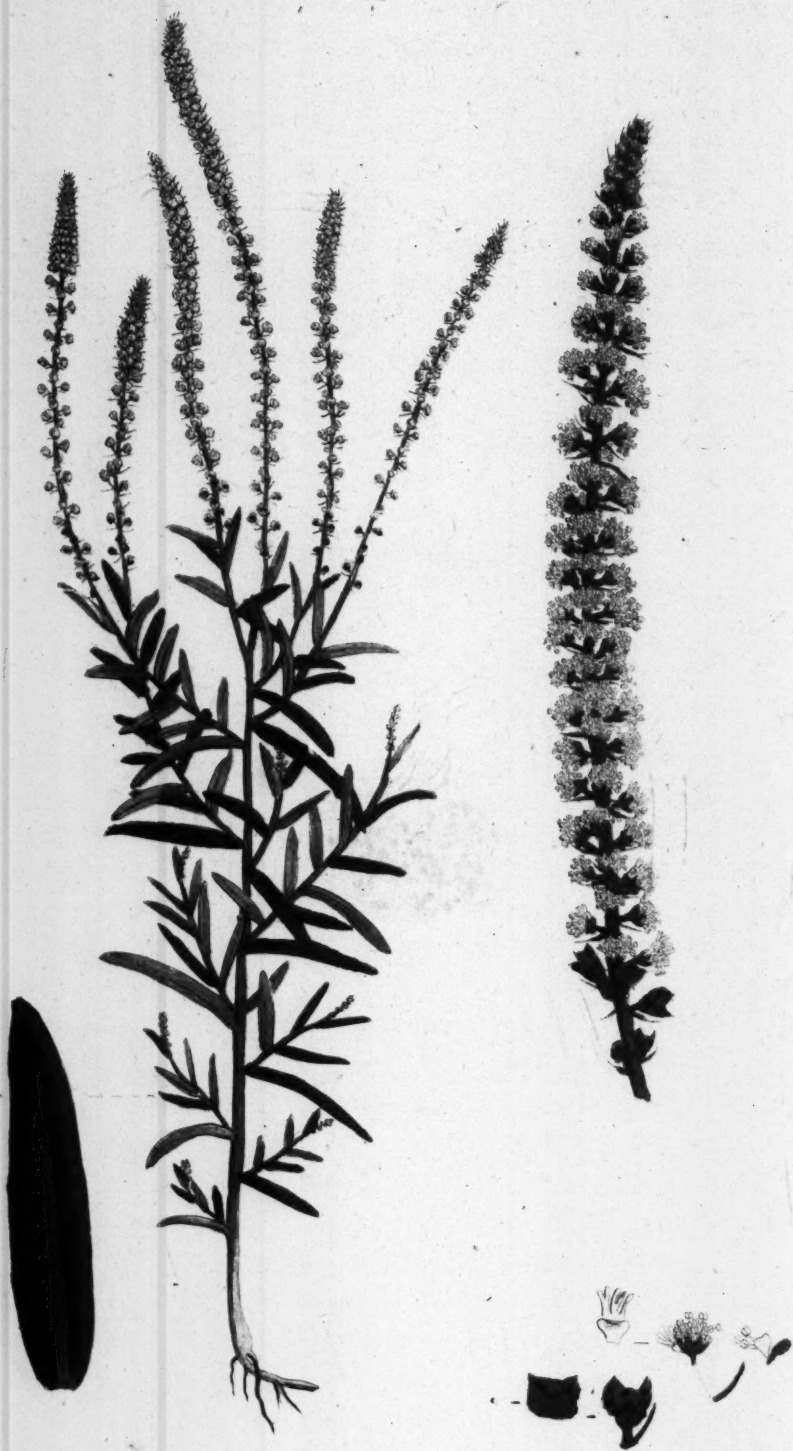
VOL. II.

L O N D O N :

Published by F. P. NODDER, No. 15, Brewer Street, Golden
Square; and sold by all Booksellers and Stationers in Great
Britain and Ireland.

1792.





RESEDA.

DODECANDRIA Trigynia.

GENERIC CHARACTER.

Calyx one-leafed, parted. *Petals* jagged. *Capsule* gaping at the mouth, and one-celled.

SPECIES.

Reseda Luteola. *Dyer's-weed*, or *Weld*.

Lin. spec. 643. *Huds. angl.* 207. *With. arr.* 492—Figured in *Fl. dan. t.* 864. *Ger.* 398. 1. *emac.* 494. *Park. theat.* 603. 1. *Pet. brit.* 38. 12. *Blackw.* 283.—Described by *Hall. belv. n.* 1058. *Poll. lich. pal. n.* 453. *Krock. files. n.* 719. *Withering, &c.*

SPECIFIC CHARACTER.

Leaves lanceolate, entire, with a tooth on each side at the base. *Calyxes* four-cleft.

DESCRIPTION.

ROOT annual. *Stem* from a foot to three feet in height, upright, smooth, furrowed, leafy. *Leaves* spreading on the ground in a ring, bright yellowish green, shining, sessile, from three to five inches in length, and near half an inch in breadth, waving about the edge; they have a minute reddish

tooth on each side of the base : the stem-leaves are alternate, and the upper ones linear. *Spike* very long, bending at the end, sometimes having more than 350 flowers in it ; each of them stands singly, on a short pedicel, and has a single, subulate, yellowish bracte at the base : they are of a pale yellow colour, and about one-sixth of an inch in diameter. Calyx cut into four segments ; petals three, the upper one melliferous, cut half way into six parts ; the lateral ones opposite and trifid ; besides these, there are sometimes two very small ones at bottom, which are entire. *Stamens* from twenty to thirty. *Capsule* with three valves, rolled inwards, so as to fold about the seeds.

OBSERVATIONS.

This plant is not uncommon in a wild state, in pastures, fallow fields, waste places, and on dry banks and walls ; flowering in June and July. The root and bottom leaves are generally formed from the fallen seeds before winter ; and thus it happens in this, as in many other cases, that the wild plant is biennial ; whilst the cultivated plant, growing from seeds sown in the Spring, is annual.

It is an observation of Linneus's, that the nodding spike of flowers follows the course of the sun, even when the sky is cloudy ; pointing towards the east in a morning, to the south at noon, and westward in the afternoon ; in the night it points to the north.

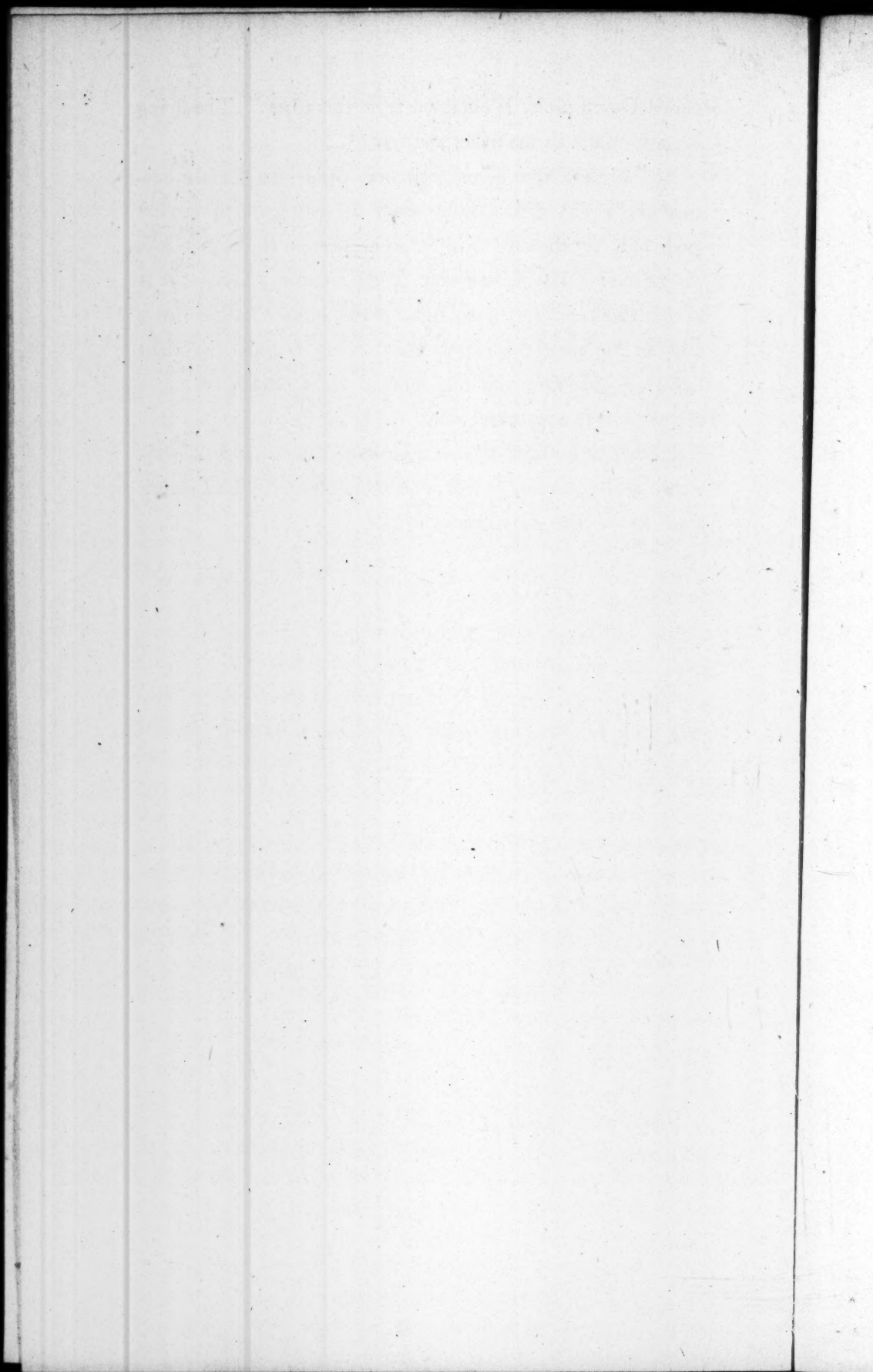
Cattle do not eat this plant, except that sheep sometimes crop it. Dyers, however, make considerable use of it ; for it affords a most beautiful yellow dye, which is valuable for its brightness. Blue cloths are dipped in a decoction of it in order to become green. The yellow colour of the paint,

called Dutch pink, is obtained from this plant. The dying quality resides in the stalks and roots*.

Mr. Miller, who gives particular directions for the culture of Weld, affirms, that though it will grow upon very poor soil, yet the crop will be in proportion to the goodness of the land. Dr. Withering, on the contrary, says, that it is cultivated in sandy soils, rich soil making the stalk hollow, and not so good. A sandy loam probably suits this plant best; on poor sand the crop will be light, and heavy clays are certainly not proper for it.

In various authors it has the name of *Dyer's-weed*, *Yellow-weed*, *Weld*, *Would*, *Woold*, and *Wild Weed*. The London dyers know it by the name of *Woold*.

* Withering.





Drawn, Engraved & Published Dec. 1799, by F. P. Nodder, N° 5 Brewer Street, Golden Square.

ISATIS.

TETRADYNAMIA Siliquosa.

GENERIC CHARACTER.

Siliqua or pod lanceolate, having a single cell with one seed in it, and two boat-shaped valves; it is deciduous.

SPECIES.

Isatis tinctoria. Common dyer's Woad.

Lin. spec. 936. *Huds. angl.* 299. *With. arr.* 717.—
 Figured in *Ger.* 394. *emac.* 491. *f.* 1, 2. *Park. theat.* 600. *Mor. hist. f.* 3 *t.* 15. *f.* 10, 11. *Pet. brit. t.* 48. *f.* 9. *Blackw.* 246.—Described by
Hall. belv. n. 523. *Pollich pal. n.* 645. *Raii hist.* 842.

SPECIFIC CHARACTER.

Root-leaves crenate; stem leaves sagittate; filicles oblong.

 DESCRIPTION.

ROOT biennial. *Stem* upright, stiff, round, very smooth, reddish, leafy, branched very much towards the top, from two to three feet high in a wild state, but attaining nearly the height of four feet when cultivated. *Leaves* next the root ovate-lanceolate, running a little into the petiole,

slightly toothed about the edge, somewhat glaucous, not unlike the leaves of Hound's-tongue. The leaves on the stem are alternate, and embracing, two or three inches in length, and scarcely half an inch in breadth, mostly entire, but sometimes very finely toothed about the edge, quite smooth, except that some of the lower ones have a few hairs on the lower surface about the edge, and on the midrib. In the cultivated plant the leaves are smoother than in the wild one, of a more lucid green, and of a thicker consistence; both they and the whole plant are larger. The uppermost leaves are linear-lanceolate. The flowers are small, but very abundant, growing very close in racemes or clusters, at the ends of the stem and branches. The corolla is of a yellow colour, each of the four petals notched at the end; the calyx being also of a greenish yellow, some old writers took it for part of the corolla; the leaflets of this, however, are smaller than the petals. The filicles or little pods hang down on slender fruit-stalks; they are oblong, flattened, blunt at the end, broader in the middle and at top, narrower at bottom, half an inch long, and one eighth of an inch broad, smooth, and when ripe turning of a chestnut colour so dark, as to appear black.

OBSERVATIONS.

Woad can hardly be considered as an indigenous of Britain, though plants are occasionally found that have escaped from cultivation. It is a native, however, of many parts of Europe, from the shores of the Baltic to Spain and Italy. With us it flowers in June and July. It is in great use among the dyers both for dying blue, and as a basis for several other colours. It is commonly supposed to be the plant with which the ancient Britons painted their bodies; though Mr. Miller will have it that they used the *Weld*, be-

cause that is a native, whereas *Woad* is of late introduction.

Cæsar, and other Latin authors, call Woad by the name of *Vitrum*, which probably is a translation of the Gaulish name *Glassa*. Our English names, *Woad* and *Wade*, are from the German *Waid*; in Low Dutch, *Weet*; or from the Italian *Guado*, which may possibly be from *Glaſtum*.

According to Hackluyt (2. 46.) we were dependent upon France for Woad, in 1576: and we are informed, in Stow's annals, that in Queen Elizabeth's time, the cultivation of it was even forbidden.

It appears, however, that this prejudice was well got the better of. For Walter Blith, in 1653, says,—“ It hath
“ been one of the greatest enrichments to the masters there-
“ of, until the midst of our late wars, of any fruit that the
“ land did bear.”

It requires a strong soil, that is not moist; and it is commonly sown on fresh land, near great towns, where plenty of drefs can be procured. We observed considerable pieces of it last year in the neighbourhood of Bristol.

See Camden's *Britannia*, Gibson's edition, p. 343. and Gough's, p. 333, under Bedfordshire.

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EUPHRASIA.

DIDYNAMIA Angiospermia.

GENERIC CHARACTER.

Calyx four-cleft, cylindrical. *Capsule* two-celled, ovate-oblong. *Anthers*, the lower ones, have a little thorn at the base of one of the lobes.

SPECIES.

Euphrasia Odontites. *Red Eye-bright.*

Lin. spec. 841. *With. arr.* 636.—*Bartfia Odontitis Hudf. angl.* 268.—Figured in *Curtis lond.* I. 44. *Fl. dan. t.* 625. *Rivin. mon.* 90. 2. *Ger.* 85. *emac.* 91. 3. *Park. theat.* 1329. 3. *Mor. hist.* 11. 24. 10. *Petiv. brit.* 36. 4.—Described in *Hall. belv.* n. 304. *Scop. carn. n.* 754. *Pollich. pal. n.* 582. *Leers herb. n.* 476. *Krock. files. n.* 970. *Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Leaves linear, all ferrate.

DESCRIPTION.

ROOT annual. The whole plant commonly tinged with brownish red. *Stem* upright, stiff, from 6 inches to a foot

in height, obtusely four-cornered, rough with hairs, having numerous branches in opposite pairs. *Leaves* opposite, sessile. *Flowers* in long leafy spikes, all pointing one way or growing on one side of the stalk, in pairs, or single, on short peduncles. *Calyx* hairy on the outside; the teeth equal and sharp. *Corolla* dusky red or purple (sometimes varying to white), hairy, the upper lip compressed and scarcely emarginate, the three lobes of the lower lip shorter than the upper, equal, truncate, finely notched. All the lobes of the anthers are thorny at the top, or end in short taper points, and are bearded at the base. Germ hairy, surrounded and sheathed at the base by a skinny membrane. Style, before the flower opens, bent in under the upper lip, afterwards longer than the corolla, most hairy towards the bottom. Seeds whitish, streaked.

OBSERVATIONS.

This is a common weed, both in corn fields and pastures, especially where it is moist; flowering from July to September. According to Linneus, most cattle will eat it. With us it appears to be untouched in the pastures; and we are assured by an ingenious observer, that when it is in full vigour, cattle, so far from eating it, will abstain from the grass even to the distance of some inches from the plant.



Desmodium, Engraved & Published, Nov. 1798, by F. & J. Nees, A.S. Desmodium. Sem. Golden Square.

AGRIMONIA.

DODECANDRIA Digynia.

GENERIC CHARACTER.

Calyx five-toothed, fenced with another. *Petals* 5.*Seeds* 2, in the bottom of the calyx.

SPECIES.

Agrimonia Eupatoria. *Agrimony.*

Lin. spec. 643. *Huds. angl.* 206. *With. arr.* 490. *Curtis lond.* V. 32. *Lightf. scot.* 247.—Figured in *Mill. illustr.* *Jungh. offic. cent.* 1. f. 6. *Berg. phyt.* 2. 205. *Fl. dan.* t. 588. *Ger.* 575. *emac.* 712. *Park.* 594. 1.—Described by *Haller helv.* n. 991. *Scop. carn.* n. 567. *Pollich. pal.* n. 452. *Krock. files.* n. 718. *Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Stem-leaves pinnate, with the odd one petioled;
fruits hispid.

DESCRIPTION.

THE *root* is perennial, and in the Spring sweet-scented. The *stalk* is upright, from a foot to three feet in height, cylindrical, rough with hairs, sometimes single, and sometimes

branched. The *leaves* are interruptedly pinnate, and placed alternately; they consist of several (3-6) pairs of soft, ovate, sessile leaflets, which are serrate and ciliate; the smaller leaflets between these are entire, or at most trifid. The flowers are thinly scattered in a long simple spike. They are of a yellow colour, and when fresh gathered, smell like apricots*. The number of stamens is very uncertain, and usually 10 to 12, sometimes more, and not unfrequently fewer. The covering of the seeds is formed of the calyx, contracted at the neck, and hardened; being surrounded with hooked awns at the top, it adheres readily to the clothes of the passenger.

OBSERVATIONS.

It is common in a dry soil, by the sides of hedges and ditches, in woods, in pastures, and on the borders of corn fields; flowering from June to September.

According to Linneus, sheep and goats alone eat it; but we may venture to affirm with Mr. Curtis, that cattle in general leave it untouched.

The plant has a bitterish roughish taste, with a weak aromatic flavour. It is a rural remedy in habitual diarrhoeas and indispositions from a lax state of the solids. The leaves make a pleasant infusion, or tea, said to be serviceable in hæmorrhagies, and in obstructions of the liver and spleen. They may be used also by way of cataplasm in bruises and fresh wounds†.

The Canadians are said to use an infusion of the root in burning fevers, and with great success. Dr. Hill affirms, that the same infusion is an effectual cure for the jaundice‡.

* Withering. † Lewis and Lightfoot. ‡ Withering.

When this plant is coming into flower, it will dye wool a good bright nankin colour; gathered in September, it yields a darker yellow. It gives a good dye in all states, and being a common plant, easily cultivated, probably deserves to have trials made with it by the dyers.

In the Berlin acts it is recommended for dressing leather.

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is used in the same sense. It is the same
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Drawn, Engraved & Published, Nov. 1799, by F.D. Nodden, N. 15, Brewer Street, Golden Square.

SCANDIX.

PENTANDRIA Digynia.

GENERIC CHARACTER.

Corolla radiate. *Petals* emarginate. *Fruit* subulate.

The florets in the disk are frequently male.

SPECIES.

Scandix Pecten. *Shepherd's-needle*, or *Venus's-comb*.*Lin spec.* 368. *Huds. angl.* 123. *With. arr.* 304.*Curtis lond.* V. 21. Figured in *Jacqu. austr.* 3. t.263. *Fl. dan. t.* 844. *Ger.* 884. *emac.* 1040. 1.*Park.* 916. 1.—Described by *Hall. belv. n.* 754.(Myrrhis) *Pollich pal. n.* 296. *Krock. files. n.*446. *Lyons in Relh. cant. n.* 233. *Curtis, With-**ering, &c.*

SPECIFIC CHARACTER.

Seeds with a very long beak.

DESCRIPTION.

STALK from 6 inches to a foot in height, a little branched, cylindric, somewhat hairy, at bottom purple, or striped with purple lines. *Leaves* bipinnate, finely cut; the segments linear, bifid or trifid, and pointed. The universal umbel ge-

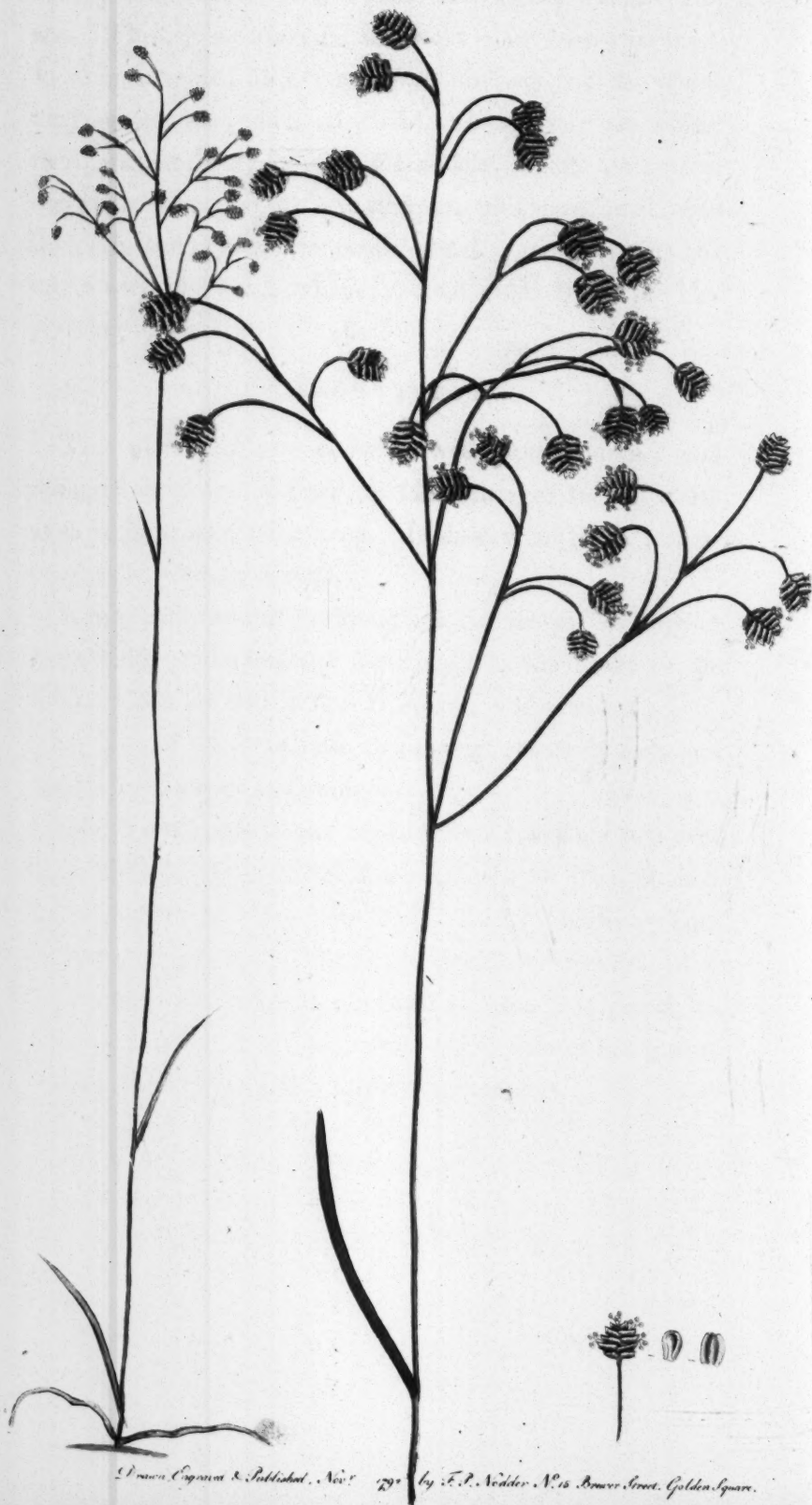
nerally consists of two rays, sometimes three; the partial of ten. There is no universal involucre; but the partial involucre is composed of five uncommonly large leaflets, which are ribbed, ciliate, and usually bifid. The flowers are white; there are commonly some in the middle, which are regular and male, others in the circumference, which are female, and irregular, having the outer petals largest. Seeds running out into a very long beak, which is flattened, and has fine prickles pointing upwards at the angles.

OBSERVATIONS.

This plant is a very common weed among corn; and though a small annual plant, is sometimes in such quantity as to be injurious to the crop. It flowers in June, and ripens its seed before harvest.

It may easily be known by its fine cut leaves, its singular large bifid involucre, and particularly by the beaks to the seeds, which are two inches in length, and so much resembling those of the Cranebill, that it might be easily mistaken for one by a novice in Botany.

We do not know of any use to which this plant has ever been applied. It is of the same genus with Chervil, and having something of the same smell and taste, might perhaps be put to the same use. We should be cautious however what substitutions we make in this class of umbellate plants, in which many species are poisonous. One even of this genus, *Scandix Anthriscus*, is of a suspicious character.



BRIZA.

TRIANDRIA Digynia.

GENERIC CHARACTER.

Calyx two-valved, many-flowered. *Spicule* in two rows, with heart shaped, blunt valves; the inner one minute.

SPECIES.

Briza media. Middle Quaking-grass.

Lin. spec. 103. *Huds. angl.* 38. *With. arr.* 92. *Relb. cant. n.* 73.—Figured in *Fl. dan. t.* 258. *Mor. bist.* 8. 6. 45, 46. *Ger.* 80. 2. *emac.* 86. 2. *Park. theat.* 165. 2.—Panicle, *Leers herb. t.* 7. f. 2. *Scheuch. t.* 4. f. 8, 9.—Described by *Hall. belv. n.* 1448. (Poa) *Scop. carn. n.* 109. *Pollich. pal. n.* 97. *Krock. files. n.* 146.

SPECIFIC CHARACTER.

Spicules ovate. *Calyx* shorter than the (7) florets.

DESCRIPTION.

ROOT perennial. *Culm* upright, 6 or 7 inches high in a dry soil, but in wet and boggy places, 2 or 3 feet in height; having 4 or 5 knots on it, 3 of which are near the root.

Leaves from 2 to 3 or 4 inches in length, and a line or a line and half in breadth; the upper one forms a sheath for the panicle, which continues a long time within it. *Panicle* handsome, spreading very much when in flower, and having two spicules on each branch: each spicule is composed of 7, 8 or 9 florets, and being all placed on very long, fine peduncles, shake with the least air or motion: they are heart-shaped, flatted, shining, smooth, varying in colour, usually variegated with green, white and purple, but sometimes they are entirely white.

OBSERVATIONS.

This beautiful grass is very common in pastures, where it is easily distinguished by the continual shaking of the little spikes. Hence most of its common English names, as well as that of old authors, *Gramen tremulum*. It flowers from May to July.—Plants that are much noticed by the common people are sure to have many names: this is called Quaking-grass, Cow-quakes, Shakers; and from its fineness, Ladies hair. It is eaten fresh by cattle, and made into hay, with other grasses, but we do not know that it has any particular quality or excellence, nor is it ever cultivated separately. A larger sort (*Br. maxima*) is sometimes admitted into gardens for its beauty.



Stemona ligustrata L. Published Jan. 1892, by F. P. Vaiden, N. S. Brewer, Secy, Golden Square.

HORDEUM.

TRIANDRIA Digynia.

GENERIC CHARACTER.

Calyx lateral, two-valved, one-flowered, three-fold.

SPECIES.

Hordeum murinum. *Wall Barley-grass.*

Lin. spec. 126. *Hudf. angl.* 56. *With.* 126. *Ray, syn.* 391. 1.—Figured in *Curtis, lond.* 5. t. 9. *Fl. dan.* t. 629. *Mor. hist. f.* 8. t. 6. f. 4. *Ger. herb.* t. 66. f. 2. *emac.* 73. f. 1. *Park. theat.* 1144. f. 7.—Described by *Hall. helv. n.* 1536. *Pollich. pal.* n. 132. *Krock. files. n.* 193. *Scheuch. agrost.* 14. *Curtis, &c.*

SPECIFIC CHARACTER.

Lateral florets male and awned; involucre of the intermediate florets ciliate.

DESCRIPTION.

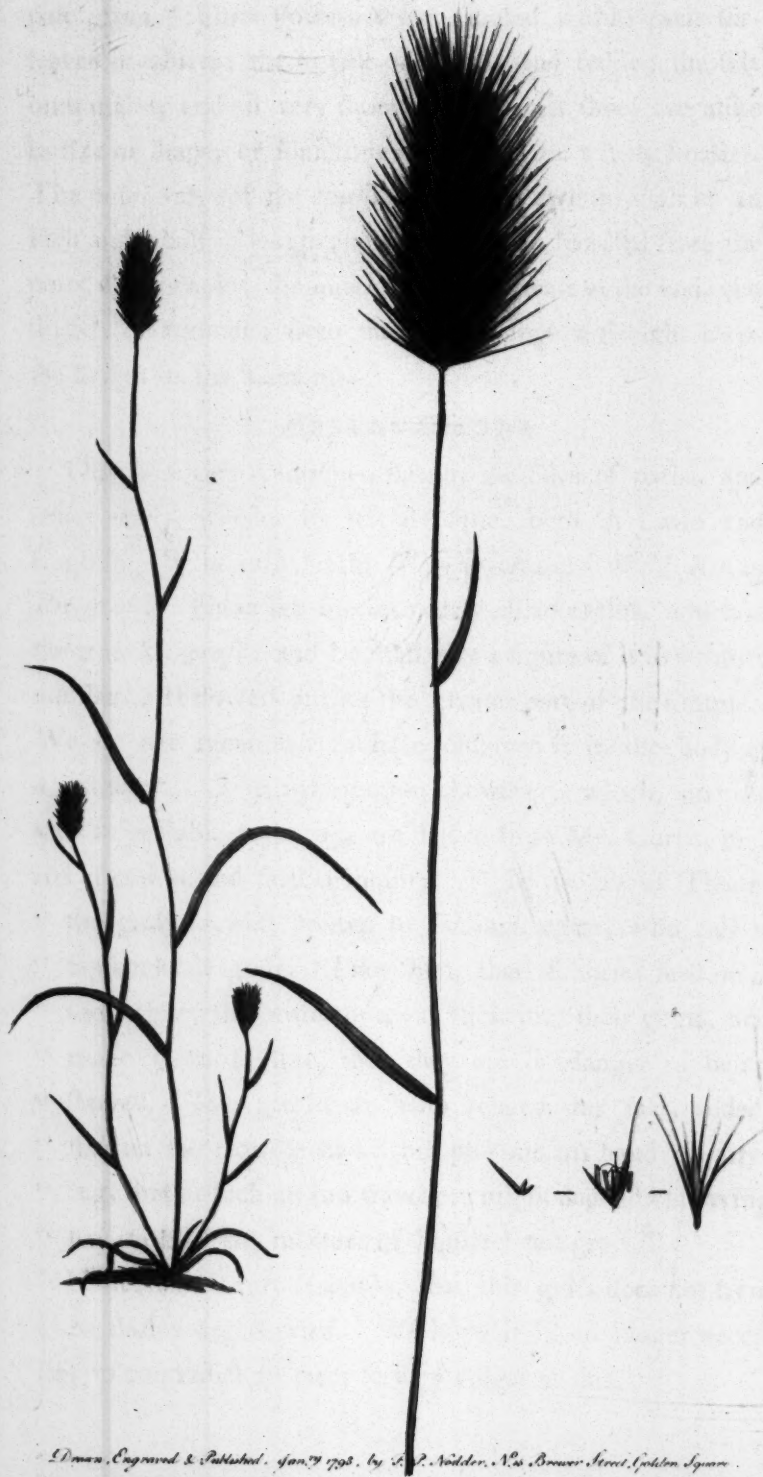
ROOT annual. Stalks numerous, a foot or eighteen inches in height, round, smooth, frequently branching at bottom, where they are procumbent, and bend at the joints; these are about five in number, they swell out, and are either paler than the stalk, or sometimes tinged with purple; the upper part of them is erect. Leaves from 3 or 4 to 6 inches

in length, and a quarter of an inch in breadth, covered with a soft down on both sides. Spikes two or three inches long, pale green. Three flowers are contained within each six-leaved involucre; the middle one fertile and sessile; the side ones males, and on very short pedicels; all three are alike in size or shape, or sometimes the latter are a little smaller. The outer valve of the corolla ends in an awn an inch or an inch and a half in length; and rough when handled from the point downwards; the inner valve is truncate at the end, and slightly emarginate; from the base springs a straight awn, the length of the filaments.

OBSERVATIONS.

This is a very common grass by the sides of paths, and under walls, whence its trivial name, both in Latin and English. It is called also *Way-Bennet*, and *Wild Rie* or *Rie-grass*. There is a species nearly allied to this, which is the true *Rie-grass*; and we shall give a figure of it in a future number. It flowers during the greater part of the summer. We do not remember to have observed it in the body of a meadow. The information however, which, on the most respectable authority, we derive from Mr. Curtis, merits attention and farther inquiry. "In the Isle of Thanet
" this grass is well known to the innkeepers, who call it
" Squirrel-tail grass. They find, that if horses feed on it
" some time, the beards or awns stick into their gums, and
" make them so sore, that they are in danger of being
" starved. The gentleman who related this fact, added,
" that on the road he had a bill put into his hand, signifying,
" that at such an inn travellers might depend on having
" hay without any mixture of Squirrel-tail grass."

Haller writes very seriously, that this grass does not seem to be Barley degenerated. We hope it is no longer necessary to contradict an error so very vulgar as this.



SPECIES.

Hordeum maritimum. *Marsh Barley-grass.* *Wither.*

Bot. Arr. 127.

H. marinum. *Huds. angl.* 57.

Gramen fecalinum palustre & maritimum. *Ray, syn.*

392. 3.

Figured in *Mor. hist. f.* 8. *t.* 6. *f.* 5.

Described by *Scheuchzer, agrost. p.* 18.

SPECIFIC CHARACTER.

Lateral florets male and awned; inner involucre half-ovate. *Huds.*—rather, half-spear shaped, not ciliate.

DESCRIPTION.

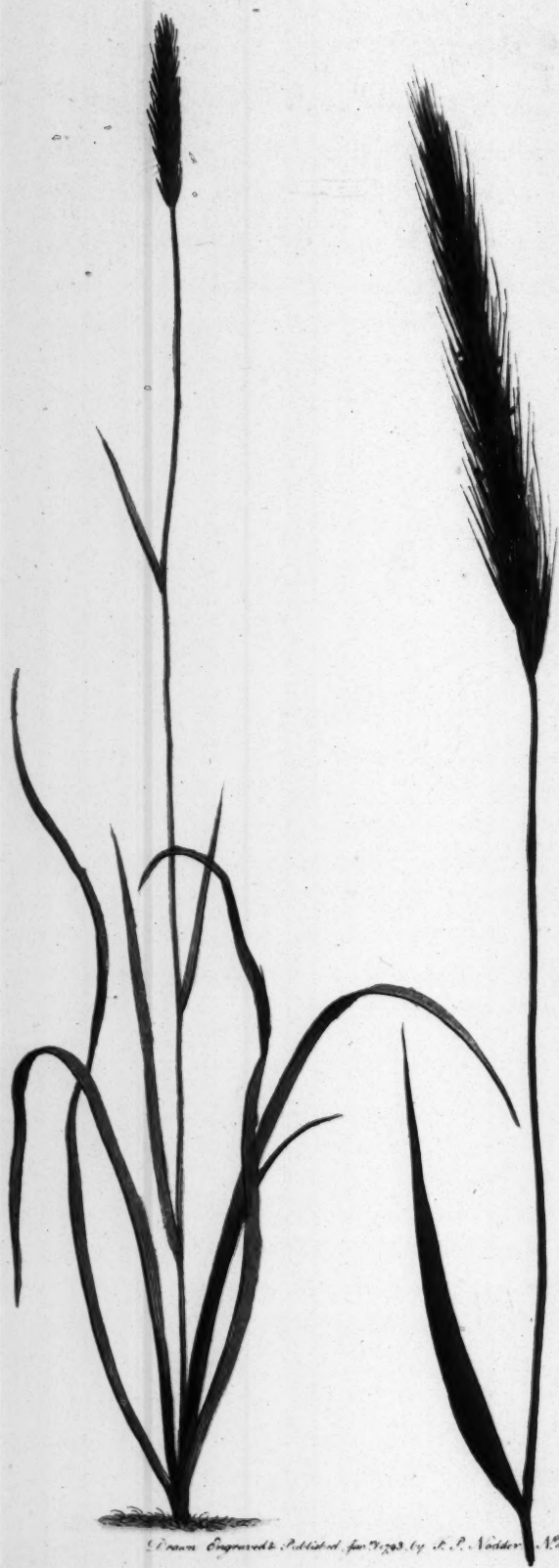
THIS differs from Wall Barley-grass, in having shorter pyramidal spikes, made up of a greater number of scales more crowded together, with the awns more standing out, those at bottom longest, and becoming gradually shorter towards the top of the spike*.

Involucres roughish, neither ciliate nor scored. Florets smooth; the middle ones sessile; the lateral ones on very short peduncles at the base of their involucre, and their awns somewhat longer than the floret †.

* Ray, syn. † Withering.

OBSERVATIONS.

Found in salt marshes near the sea, flowering in June and July. It may be doubted, till experiments are made, whether this be a distinct species. So much alteration arises in the appearance of grasses, by salt water and sea air, that some caution is necessary in determining whether they be really different or not.



Pennisetum purpureum L. Published for 1793, by R. P. Volder. No. 1. Brauer's. Golden Square.

SPECIES.

Hordeum sylvaticum. *Wood Barley-grass.* *Huds.*

angl. 57. *Hall. helv. n.* 1537.

H. cylindricum. *Murr. prodr.* 43.

Elymus europæus. *Lin. syst.* 125. *mant.* 35. *With.*
arr. 124.

Gramen fecalinum majus sylvaticum. *Ray, syn.* 392.—
maximum Park. theat. 1144. 7.

Gr. hordeaceum montanum, &c. *Scheuch. agr.* 16.
prod. t. 1.

SPECIFIC CHARACTER.

All the florets hermaphrodite, awned; involucre connate at the base, shorter than the awns. *Huds.*—Spike upright, spikelets two-flowered, involucre equal. *Lin. mant.*

DESCRIPTION.

ROOT perennial. Stalk upright, stout, two feet high and upwards, having 4 or 5 joints. The leaf at each of these is about a span in length, and a quarter of an inch or rather more in breadth; smooth to appearance, but roughish to the touch, especially round the edges. Sheaths hairy. Spike narrow, two inches or more, and sometimes near three inches in length; much narrower, more naked, less rough, and harder than in *Wall Barley-grass*; the spikelets stiffer and longer, the pedicels thicker, and the awns shorter, except that of the inner

valve of the corolla, which is longer: the middle floret is rather larger than the two others, with an awn somewhat shorter. They are all smooth to the naked eye, but appear hairy with a magnifier*. There are frequently only two florets; the lower on a very short pedicel; the upper on one near half its length; with the rudiment of a third pedicel at the base of the inner valve. According to Dr. Stokes, the floret is generally single.

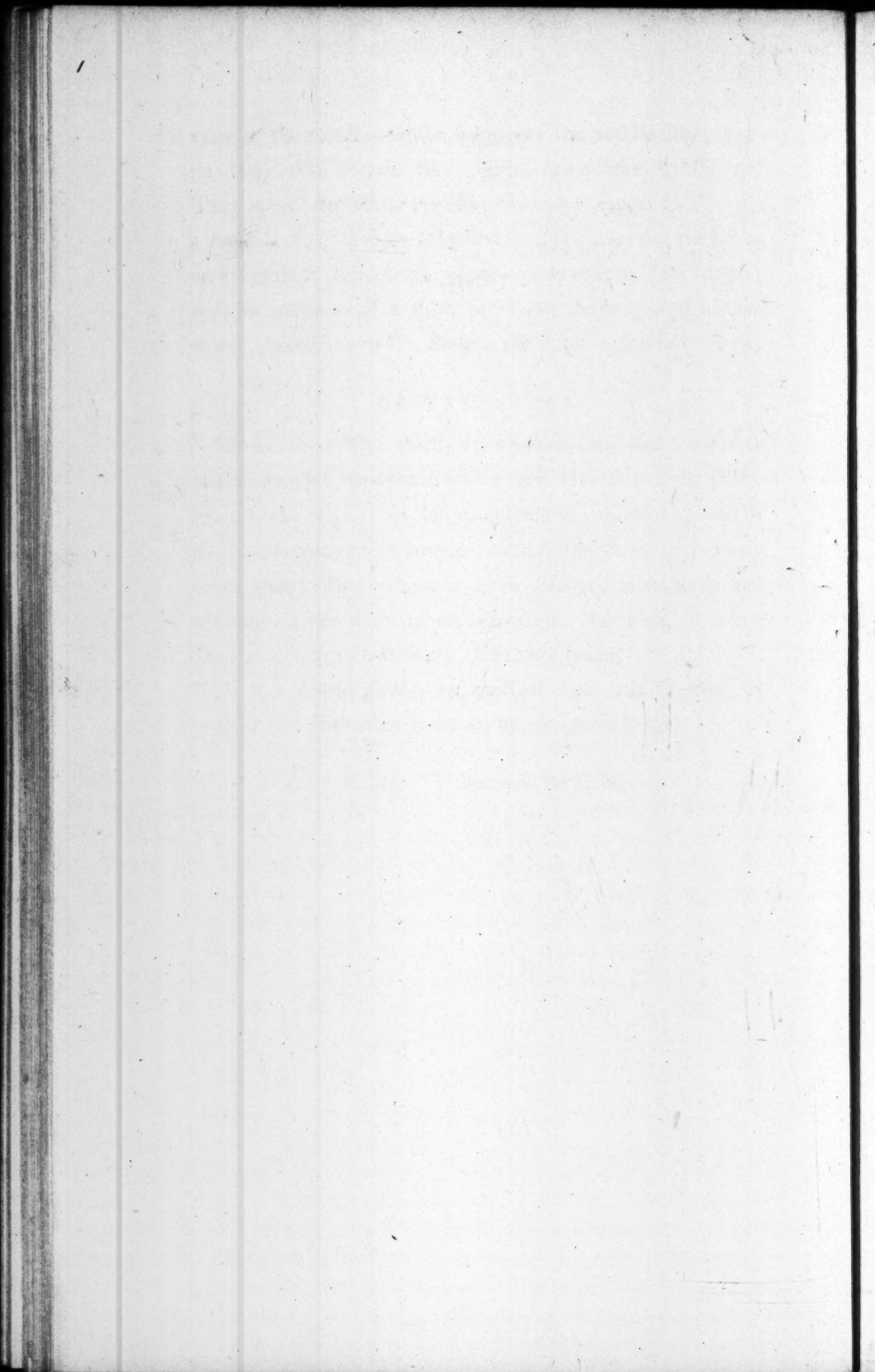
OBSERVATIONS.

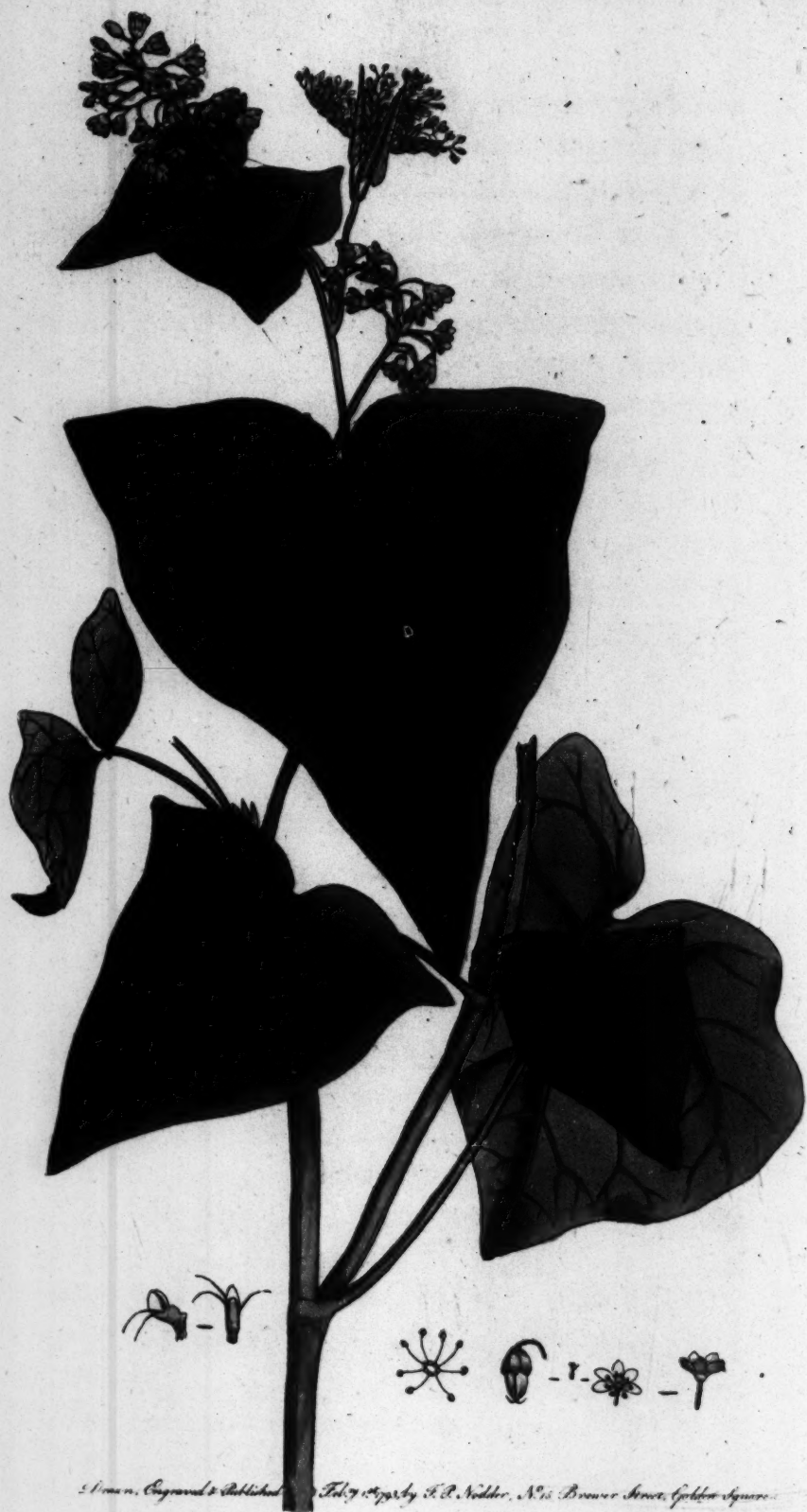
Native of woods, chiefly in a calcareous soil; as near Stokenchurch; between Marlow and Henley; near Berkhamstead; Ripton in Huntingdonshire; Matlock; and in the North much more frequent than in the South. It flowers in June. In structure it is an *Elymus*; in habit it approaches rather more to the *Hordeum*. In truth, it seems the connecting link between these two genera†.

It is a coarse grass, like most of those which grow in woods, and sometimes is drawn up to a great height.

* Haller. † Stokes in Withering.

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Drawn, engraved & published by F. R. Nodder, N° 10. Brewer Street, Golden Square.

POLYGONUM.

OCTANDRIA Trigynia.

GENERIC CHARACTER.

Calyx none. *Cor.* five-parted, calycine. *Seed* 1, angular.

SPECIES.

Polygonum Fagopyrum. *Buck-wheat.*

Lin. spec. 522. *fl. suec. n.* 345. *Hudf. angl.* 172.
With. arr. 414. *Leers herborn. n.* 300.—Figured
 in *Miller illustr. Plenck. ic. medic. t.* 310. *Mor.*
hist. f. 5. t. 29. f. 1. *Ger. herb.* 82. *f. 2. emac.* 89.
Park. theat. 1141.—Described by *Hall. helv. n.*
 1563. *Ray hist.* 182.

SPECIFIC CHARACTER.

Leaves cordate-sagittate, stem nearly upright, but weak; angles of the seeds equal.

DESCRIPTION.

ROOT annual. Stalk succulent, round, smooth, either wholly green, or tinged with red, from a foot to eighteen inches in height; sometimes quite simple, but frequently having small branches coming out singly and alternately from the bosom of each leaf. Leaves succulent, triangular, or

shaped like the head of an arrow, but varying somewhat in form, smooth, dark green, entire about the edge, but sometimes waving; the lower leaves are on petioles two inches in length, but these grow gradually shorter, till at the top of the stalk they become sessile. The flowers come forth in upright spikes from the axils at the top of the stem and branches; on slender peduncles an inch or more in length. They make a handsome appearance, and are either quite white, or tinged with red; with age they become more red*. There are eight little glands surrounding the base of the germ. The eight filaments are the length of the corolla; four between the glands and the germ, and four between them and the corolla. The seed is naked, scarcely covered at the base†.

OBSERVATIONS.

Buckwheat is supposed by some to have come originally from Africa; but it is generally allowed that we derived it from Asia. It is certainly not indigenous of Europe, though in most parts of it now found on dunghills, and about cultivated fields. Flowering in July and August. Besides *Buck* and *Buck-wheat*, (Beech-wheat, from the likeness of the seed in form to Beech-mast) it has the appellations of *Brank*, *Crap*, and *French Wheat*. Gerard has also the name of *Bullimong*.

It seems to have been cultivated time out of mind in England. Gerard, in 1597, informs us that "it is very common about Namptwiche in Cheshire, where they sow it as well for food for their cattle, pullen, (poultry) and such like, as to serve instead of a dunging. It groweth likewise in Lancashire, about London, as also in Kent and Essex."—It is by no means so common a crop with us,

* Haller, Ray. † Leers.

as in many parts of the Continent; the county of Norfolk grows more of it than any other. The principal use of it is for cleaning foul land. It is either ploughed in as a manure when fully grown, or mowed for fattening swine and poultry with the grain. It is said also to be good feed for horses mixed with chaff or bran. A field of Buck-wheat furnishes a rich repast for bees late in the summer. It is made into thin cakes, called crumpets, in some parts of England, and the meal is supposed to be nutritious, not apt to turn acid upon the stomach.

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Drawn, Engraved & Published February 1878 by F. P. Nodder No. 25 Prince Street, Golden Square.

HEDYSARUM.

DIADELPHIA Decandria.

GENERIC CHARACTER.

Corolla with the keel tranversely obtuse. *Legume* jointed, with one seed in each joint.

SPECIES.

Hedysarum Onobrychis. *Saint-Foin.*

Lin. spec. 1059. *Huds. angl.* 322. *With. arr.* 785.

Ray, syn. 327.—Figured in *Jacqu. austr. t.* 352.

Riv. tetr. t. 2. *Dod. pempt.* 548. 2. *Lob. ic.*

81. 2. *Mor. hist. f.* 2. *t.* 11. *f.* 10. *Ger. herb.*

1062. 1. *emac.* 1243. 1. *Park. theat.* 1082. 1.—

Described by *Hall. helv. n.* 396. *Pollich palat.*

n. 694. *Krock. files. n.* 1190. *Withering, &c.*

SPECIFIC CHARACTER.

Legumes one-seeded, prickly; *wings* of the corolla equal in length to the calyx; *stem* elongate.

DESCRIPTION.

ROOT perennial. Stems round, streaked, at first procumbent, but when in flower ascending. Leaflets 8 or 10 pairs, with an odd one. Peduncles or flower-stalks long, slightly hairy, bearing numerous flowers in a long spike, each having an awl-shaped bracte, longer than the pedicel.

The calyx is hairy, one fourth of the length of the flower, and has five awl-shaped teeth nearly equal. The corolla has an oval standard, slightly emarginate, partly bent back, shorter than the keel, flesh-coloured, streaked with red veins; the wings not longer than the teeth of the calyx, hooked near the base, pale flesh colour; the keel broad, bent with an obtuse angle at the top, flesh-coloured, with a deeper red beneath. The legume or pod is hemispherical, compressed, with wrinkled prominences*.

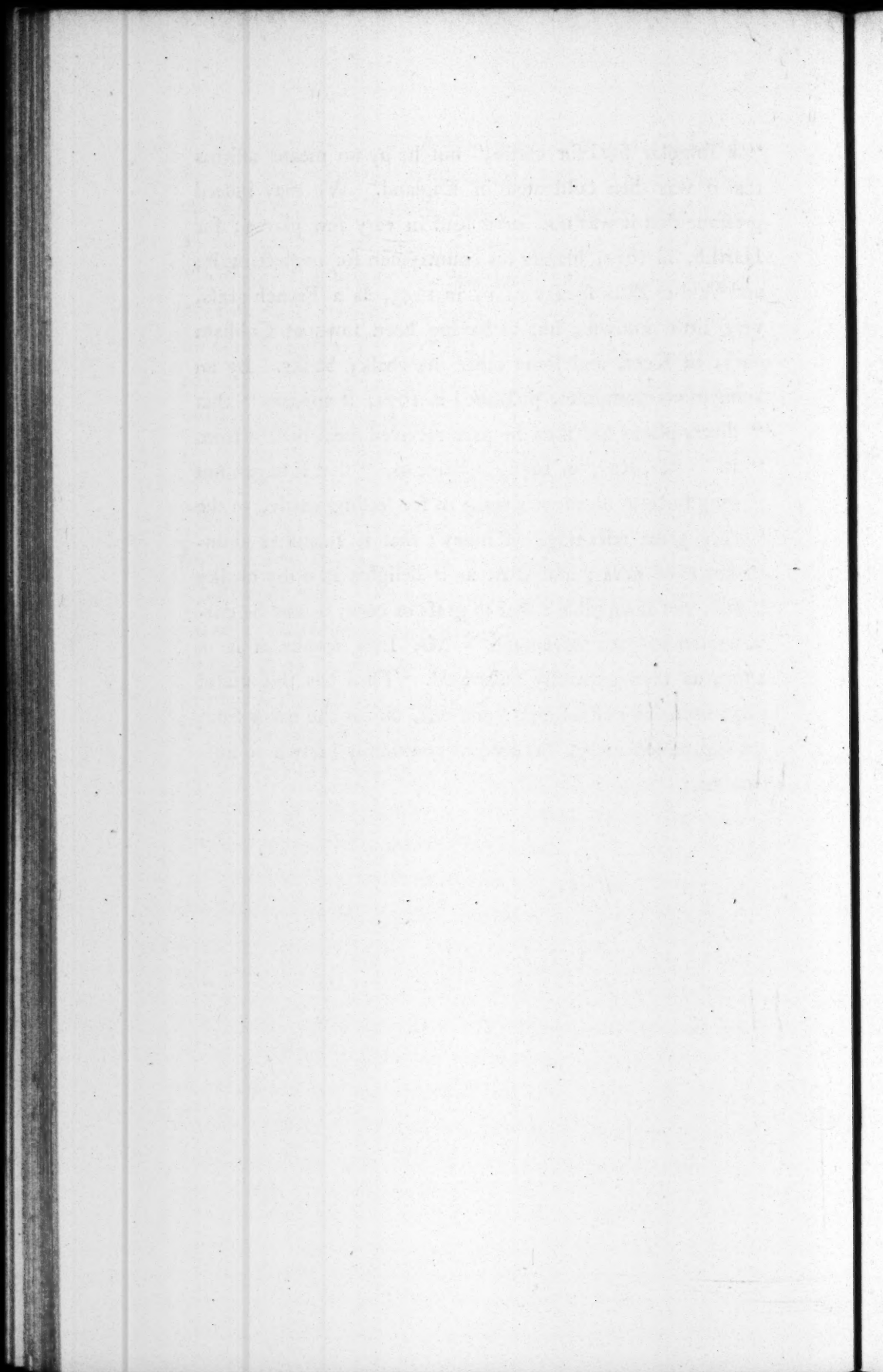
OBSERVATIONS.

Saint-Foin is a native of almost every part of Europe from Britain southwards, in hilly pastures, particularly on a calcareous soil. With us it was remarked in a wild state, before it was adopted for cultivation, on many of our chalk downs, as on Gogmagog hills, Newmarket heath, Royston downs, Luton downs, Salisbury plain, Cotswold hills, &c. The old names were *Medick Vetchling* and *Cock's-head*. The modern name of *Saint-Foin* came from France, whence and from Flanders we originally had the seed; and among cultivators it is frequently called *French-grass*.

It has been long cultivated in several parts of Europe, on dry soils, for feeding cattle; and with us on the Cotswold hills, in Cambridgeshire, Hertfordshire, Essex, on Epsom downs, about Malton, in Yorkshire, &c.—It seems to have crept in here about the middle of the last century, but not to have been fully established till towards the close of it. It would be too long to produce all my authorities; I shall only therefore observe, that the first mention of it, as a plant in cultivation, among our English writers, is by Parkinson, in 1640. His expression is “that it is known generally to be

* Woodward, MS.

“ a singular food for cattle;” but he by no means affirms that it was then cultivated in England. We may indeed presume that it was not, or at least in very few places; for Hartlib, in 1651, blames his countrymen for neglecting it; and Walter Blith speaks of it, in 1653, as a French grass, very little known; but as having been sown at Cobham park, in Kent, and some other dry chalky banks. By an anonymous pamphlet, published in 1671, it appears “ that
“ divers places had then in part received great benefit from
“ it.” Mr. Ray, in 1686, informs us, “ that it began not
“ long since to be sown among us for feeding cattle, to the
“ very great advantage of many; that it furnishes abundance of milk; and that, as it delights in a dry chalky
“ soil, not favourable either to grass or corn, it may be cultivated to great advantage.”—Mr. Lisle speaks of it in 1703, as then generally cultivated. Thus has this useful plant been fully established; and one, out of the many from the leguminous tribe, has become commonly known to husbandmen.





Drawn, Engraved & Published by T. L. Nodder, New-Bow, Street, Golden-Square.

MEDICAGO.

DIADELPHIA *Decandria.*

GENERIC CHARACTER.

Legume compressed, screw-shaped. *Keel* bending down from the banner.

SPECIES

Medicago fativa. *Lucern.*

Lin. spec. 1096. *Huds. angl.* 335. *With. arr.* 806.—

Figured in *Clus. hist.* 2. 242. 2. *Lob. ic.* 2. 36. 2.

Ger. emac. 1189. 2. *Park. theat.* 1114. 1. *Mor.*

hist. f. 2. t. 16. f. 2. *Bauh. hist.* 2. 378. 1.—De-

scribed by *Hall. helv. n.* 382. *Pollich pal. n.* 712.

Krock. files. n. 1221.

SPECIFIC CHARACTER.

Flowers in racemes or bunches, *legumes* or pods contorted or twisted, *stem* upright and smooth.

DESCRIPTION.

ROOT perennial. Stems streaked, branched, from a foot and a half to two feet in height. Leaves ternate ; leaflets elliptic, entire at the base, but finely serrate towards the end ; the midrib is lengthened into a point ; they are slightly downy on the upper surface, smooth and streaked with veins

on the under ; all on pedicels, the middle one longest. Peduncles axillary, longer than the leaves. Flowers in thick spikes, each on a short pedicel, with an awl-shaped bracte. Calyx nearly smooth, with five awl-shaped teeth, almost equal. Corolla purple. The legumes have two or three distant turns*.

OBSERVATIONS.

Lucern is not originally a native of Europe, but was imported into Greece from the East, in the time of the Persian war, under Darius ; whence they gave it the name of *Medica*. It is said to be the principal fodder for horses in Persia to this day. It has been cultivated time immemorial in the southern countries of Europe ; but it has not even yet gained a firm establishment in Great Britain.

Mr. Miller informs us, that seeds were brought over from France about the year 1650, and sown here † ; but that it was afterwards so neglected, as to be almost entirely forgotten. In Gerard's time (1597) we had only a small quantity thereof, as he expresses it, in our gardens, for pleasures sake. Parkinson, in 1640, informs us, that it was sown in Spain, France, and the Low Countries, but does not hint at our having it then in England. Hartlib took some pains to make enquiries about it in France. But it is barely mentioned by Blith, as being cultivated there. It seems to have been very little known in the time of Mr. Lisle, who is said to have continued his enquiries and experiments to the time of his death, in 1722. Mortimer speaks of it rather by hearsay, than from any actual knowledge of it. Tull recommends the culture of it in his

* Woodward, MS.

† He alludes, as we suppose, to Hartlib's queries, in 1651.

horse-hoeing husbandry. But Mr. Miller appears to have been the first who brought it into that degree of cultivation, which it is in at present. The attention of the public was also called to it by Mr. Rocque, in 1765. He says, that a farmer in Kent had then fourteen acres of it, but that one-and-twenty years before, there were not two hundred pounds weight of the seed in London. It was also then encouraged by premiums from the Society of Arts, &c. We remember the cultivation of it among gentlemen in different parts of the country, for forty years back.

From what Miller and Tull have written on this subject, it has been generally supposed in England, that Lucern will not answer if sown broadcast; and yet of many thousand acres which we have seen in France, Switzerland, and Italy, we never saw a single acre in drills. For gentlemen the latter method may answer very well; it will certainly last longer in this mode of culture, and may easily be kept clean by the horse-hoe. But as a common article of fodder for farmers, it will perhaps scarcely answer the expence and trouble. When sown broadcast, it will last about eight years, or perhaps longer, if the land be laid down very clean; but the natural grass gradually wears it out, as we observed, wherever we saw it cultivated on the Continent.

It has been greatly celebrated, as increasing the milk of kine; but particularly for foiling horses. Yet Haller, who certainly knew it well, asserts that cattle are apt to grow tired of Lucern, and that they are subject to be blown by it. We have not, however, heard, that it has these inconveniences in so great a degree as Clover. He also affirms, that none but the best soil will do for it. It certainly succeeds best on a light dry loam, or good sand; our own experience has taught us that it will not do on clay, or where there is a wet springy bottom; but we have had it flourish

exceedingly among dry gravel and lime-rubbish. The earliness is one of its greatest recommendations. It has been cut 17 inches high on the 9th of April.

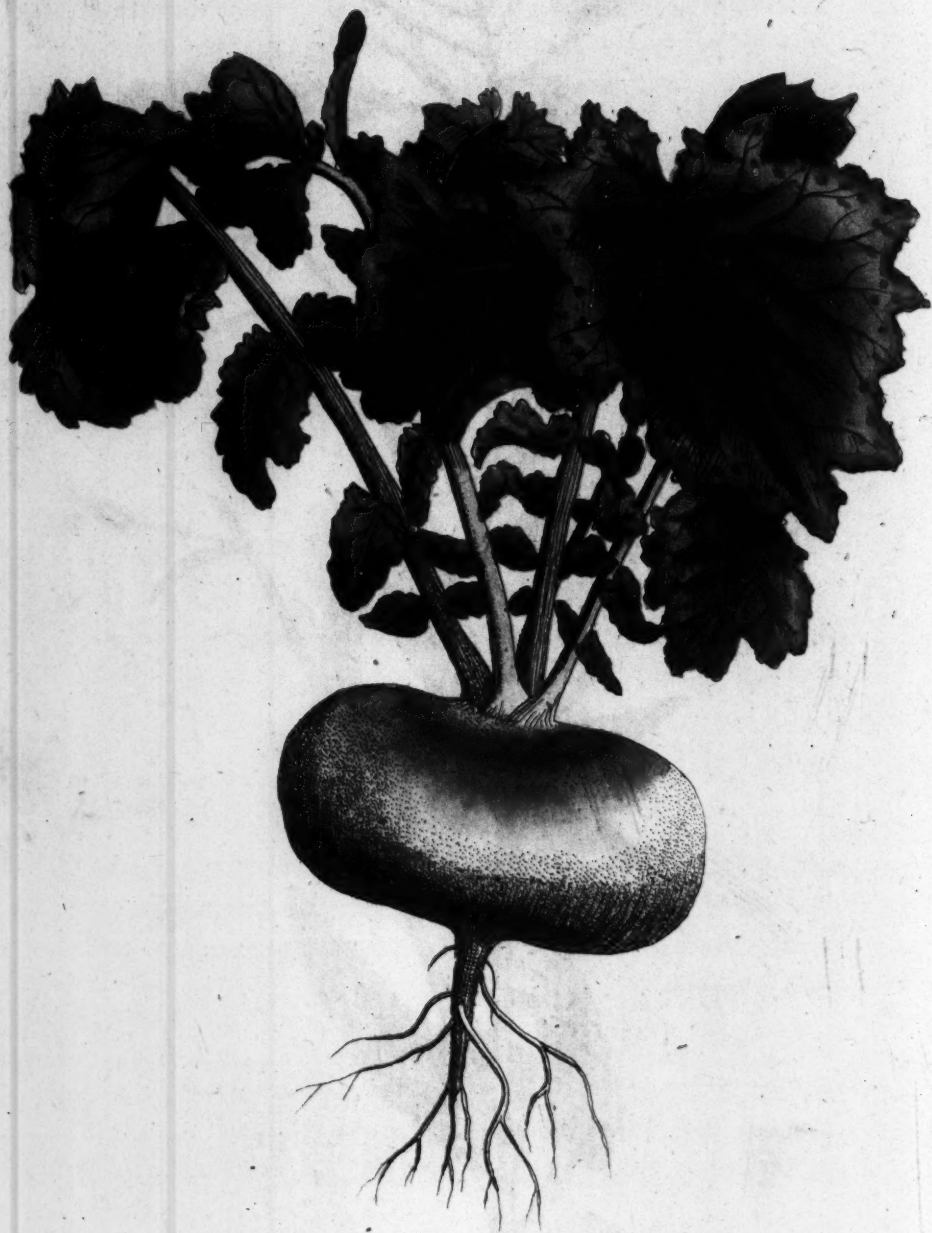
By means of these two plants, *Saint-Foin* and *Lucern*, with the addition of *Clover*, the farmer is furnished with what he calls *Artificial Grasses*, suited with good management, to almost every kind of soil. The first to the chalks, gravelly and stony lands; the second to light loams; and the third to clays. Few places indeed are so happy as to admit the cultivation of all with equal success; and yet we observed these three growing side by side, at the foot of the south downs, near East Bourn, seeming to vie with each other which should flourish the most, and yield the greatest crop. But this was in a soil, wherein the calcareous and argillaceous were so happily mixed, that almost any vegetable might succeed: and yet here we saw them ploughing up a stubble, on a level, where there is not a stone to impede them, with eight stout oxen.

The name *Lucern*, by which this plant is now generally known among us, is modern. Old English writers call it *Medick-fodder*, or *Burgundy Trefoil*.



Trans. Entomol. Soc. Lond., Nov. 1903, by F. P. Nodder, A. S. Brewer Street, Golden Square.





Drawn, Engraved & Published, March 1795, by F. P. Nodden, No. 6, Bonnet Street, Golden Square.

BRASSICA.

TETRADYNAMIA Siliquosa.

GENERIC CHARACTER.

Calyx upright, converging. *Seeds* globular. A *Gland* between the shorter stamens and the pistil, and between the longer stamens and the calyx.

SPECIES.

Brassica Rapa. Turnep.

Lin. spec. 931. *Huds. angl.* 289. *Wither. arr.* 708.—

Rapa rotunda. *Miller dict.*—*sativa.* *Bauh. pin.* 89.

Figured in *Blackw. herb. t.* 231. *Fuchs.* 212. *Trag.*

728. *Matth.* 435. *Dod.* 673. 1. *Lob. obs.* 98. 1.

ic. 197. 1. *Camer. epit.* 218. *Ger. herb.* 177. f.

1, 2. *emac.* 232. 1. *Mor. hist. f.* 3. t. 2. f. 1. *Pet.*

brit. t. 45. f. 7.

Described by *Bauh. hist.* 2. 838. *Ray hist.* 800.

Long-rooted Turnep is figured in *Bauh. hist.* 2. 838.

Matth. 436. *Dod.* 673. 2. *Lob. obs.* 98. 2. *ic.*

197. 1. *Camer. epit.* 219. *Ger. emac.* 232. 2.

Mor. hist. t. 2. f. 2. *Petiv. brit. t.* 45. f. 8.

SPECIFIC CHARACTER.

Root caulescent orbicular flattened fleshy.

DESCRIPTION.

THIS plant, now so common in cultivation, is sufficiently known to every body by its round fleshy roots. These, however, vary exceedingly in their form, size, and colour; which is owing principally to our viewing them only in a cultivated state. The leaves which arise immediately from the root are very large, of a full green, rough, and jagged or gashed almost to the midrib. From the midst of these, early in the second season of its growth, springs a stalk four or five feet high, in good ground reaching the human stature. The leaves on this are very different from the root-leaves; they are oblong, pointed, embrace the stem, are smooth and glaucous. The flowers are yellow, on long, slender, smooth footstalks. The pods are cylindric; and the seeds are spherical, of a rufous or reddish brown colour, not unlike those of Cabbage.

OBSERVATIONS.

The appearance of the Turnep in the first and second stages of its growth are so different, that we have thought it necessary to give two figures of a plant so important in rural oeconomy. We shall not attempt to specify its numerous variations. These are chiefly in the root, and arise from the different soils, situations and manners, in which it is cultivated. Probably the long-rooted Turnep approaches nearest to a state of nature; wherein the root would only swell out a little, and be of a stringy texture, with something of acrimony in the taste. From this state to the large, tender, succulent, globular, or spheroidal root, there is a wide interval. Pliny and Tragus speak of roots weighing forty pounds; Amatus of some amounting to fifty or sixty; and Matthiolus of many exceeding fifty pounds, and of some

approaching to an hundred. Yet we are told that four pounds is now reckoned an extraordinary weight for a Turnep-root in Italy, and that they usually weigh only from a quarter to half a pound. The greatest weight that we are acquainted with is thirty-six pounds; and at Stow, in Gloucestershire, a farmer produced four turneps, weighing an hundred weight; and offered a bet of an hundred pounds that he would bring eighty turneps, weighing, one with another, a ton. This root varies also in colour, being white, blackish, red, and yellow, on the outside; the latter of them is of the same colour throughout. The white is the most common, but we have figured the red, as best adapted to a coloured plate.

Considering the importance of this root in Husbandry, and the length of time which it has been cultivated in the Low Countries, it is a matter of surprise that it should have been adopted so late in this country.

There is reason to believe that Charles, Lord Viscount Townshend introduced Turneps into Norfolk, at least to any great extent, probably about the year 1730, when he retired from public business to Rainham, or soon after; perhaps earlier, for he was Ambassador Extraordinary to the States General in 1709, when he might have become acquainted with the Turnep culture on the Continent*. We are not, however, to suppose that this truly-patriotic Nobleman was the first who brought Turneps into England; nor do I think that he led the way even in Norfolk itself. For Mr. Lisle, whose observations in Agriculture were made between 1693 and 1722, informs us that he was assured by Mr. Heron, of Norfolk, that they dung their turnep-land

so much, that their dry-land meadows are quite impoverished by it*. He discoursed also with Mr. Gooch, a Norfolk gentleman, about the turnep-husbandry of that county; particularly on a distemper to which the root is subject, called the *banbery*†. He mentions the growth of turneps in Hampshire, Berkshire, and Leicestershire, in 1698 and 1699: and says that the Newtown men who hoed his Turneps in 1707, had made this their business for many years‡. He refers also to Mr. Worlidge, (who writ in 1668) as saying that the greatest enemies to Turneps are the flies§. It must be allowed, however, that the culture does not seem to have been well understood.

Barnabe Googe, indeed, says—"We use to sowe Rapes " for the sustenance both of man and beast." But we are to recollect that his work is a translation from the German, and that the above passage refers to that country. He goes on to say—"There are divers sorts of them, some of them rounde, " some growe all in length, and are most pleasant in taste, " as at *Binge*, and in the countrey of *Bavar*. Some againe " of the quantitie of a man's head, and of a hundred " pound weight: but the smallest sort is the sweetest§."

Thomas Cogan, in his *Haven of Health*, affirms, "that " although many men love to eate Turneps, yet swine by " nature doe abhorre them¶."

* Observations in Husbandry, p. 233.

† The same, p. 239. ‡ p. 233, 235, 237, 238. || p. 234.

§ *Four Bookes of Husbandrie*, by M. Conradus Herczbachius. Newly Englished, and increased by Barnabe Googe, Lond. 1586. qu. fol. 59.

¶ Edit. 1588. p. 64.

Neither Gerard (1597) nor Parkinson (1629) give the smallest hint of this root being then in field-culture for cattle. The former indeed says, " the Turnep prospereth well " in a light, loose, and fat earth ; and groweth in fields and " divers vineyardes or hoppe gardens in most places of Eng- " land." But he probably does not speak here of its being cultivated, but growing wild.—" The small Turnep (he " says) groweth by a village near London, (called Hacke- " ney) in a sandie ground, and brought to the Crosse in " Cheapside by the women of that village to be solde, and " are the best that I have ever tasted *."

Turneps, however, were certainly cultivated for cattle about the middle of the last century. For Sir Richard Weston, in his *Discourse of Husbandrie used in Brabant and Flanders* †, after saying, that " the Husbandrie of Turneps " is as common between Gaunt and Antwerp, as that of " Flax—that they will feed Oxen and Kine as fat as Hay " or Oats. That the roots being clean washed, and then " roots and leaves put into a trough, and these stampd toge- " ther with a spitter, and after boiled in water and given to " Kine, will make them abound in milk, yet grow so fat " withal, that you would wonder at it:"—Adds, that " the " onelie difficultie is to make your cattle eat them at first, " but breed them up by hand as they do there. Others do " the same alreadie in many parts of England ; they will " take Turneps and eat." He then proceeds to encourage their cultivation by showing, that an acre of them will be worth eight pounds when cattle are brought to eat them as theirs do.

* Herball, p. 178. † Edit. 2. 1652, p. 24.—The first edition is in 1645.

He remarks, however, in another place, that “ although
 “ they alreadie grow in England, yet there is as much dif-
 “ ference between what groweth there (in Brabant and
 “ Flanders) and here, as is between the same thing, which
 “ groweth in a garden, and that which groweth wilde in
 “ the fields *.”

Mr. Ray (in 1686) informs us that Turneps are sown
 every where in fields as well as gardens, for the sake of their
 roots, both in England and in foreign countries †.

Mortimer, at the beginning of the present century, says,
 that “ Turneps are of a very great advantage to be sown in
 “ fields, as food for cattle in winter. He adds, that in
 “ Suffolk they commonly give them to their cattle in the
 “ house, and that Hogs will also eat them if they are first
 “ boiled ‡.”

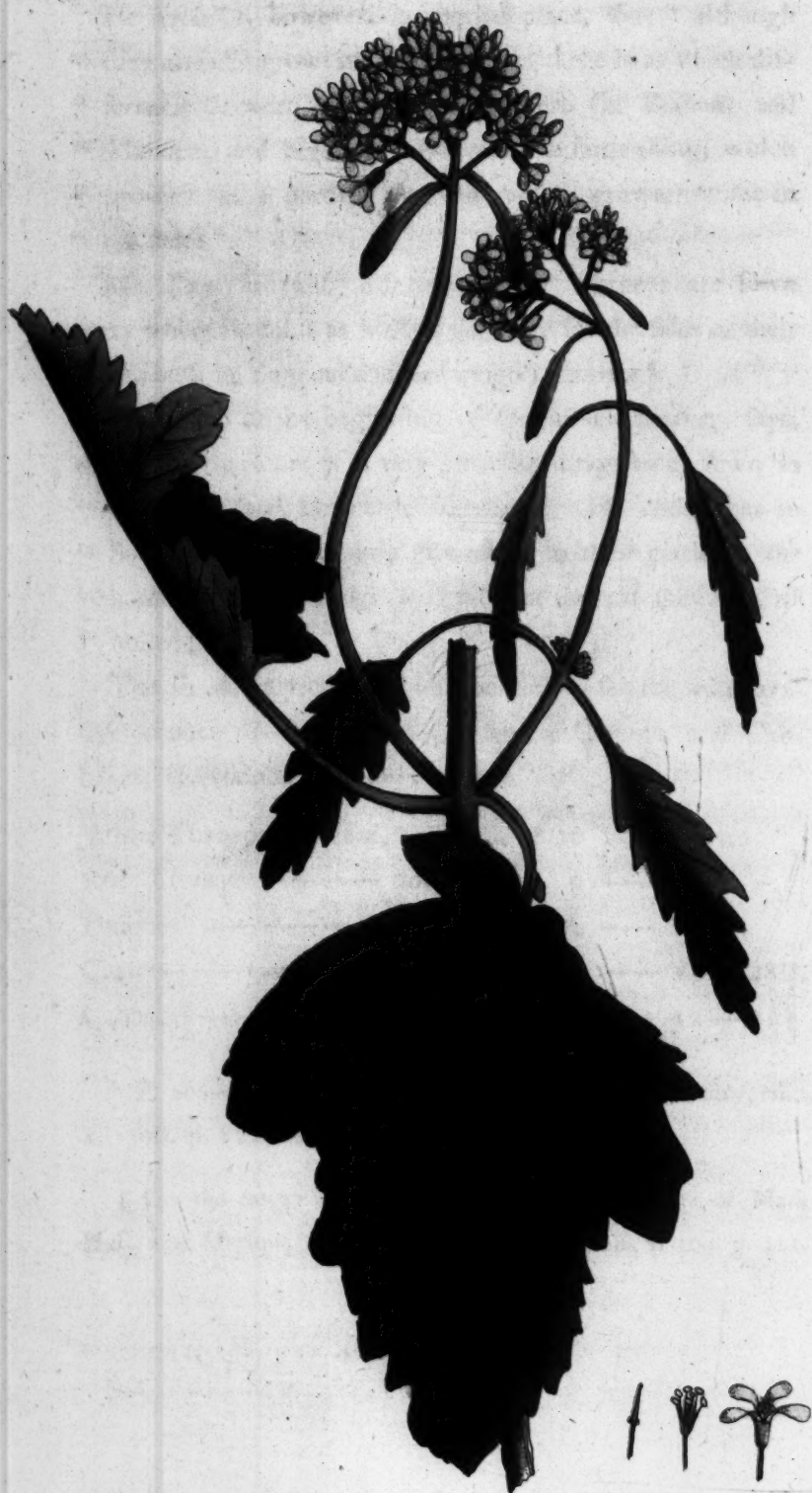
The curious agriculturist will be glad to see the compara-
 tive produce of Turneps with Potatoes, Carrots, and Cab-
 bages, ascertained as follows :

White Turneps, per acre,	24,080	lb.	or	10	Tons,	15	cwt
Red Turneps —————	20,944	—	9	—	7		
Potatoes —————	26,880	—	12	—			
Carrots —————	41,600	—	18	—	11	—	48 lb.
Cabbages —————	55,125	—	24	—	12	—	21

* P. 26.—† Hist. Plant. p. 800. ‡ Art of Husbandry, edit.
 2. 1708. p. 122.—First edition in 1706.

|| On the authority of Montagu Burgoyne, Esq. of Mark
 Hall, near Harlow, in Essex: in Young's Annals, n. 109. p. 411.





Drawn, Engraved & Published March 1793, by F. L. Nodding, N. 15. Bowyer Street, Golden Square.

SINAPIS.

TETRADYNAMIA *Siliquosa.*

GENERIC CHARACTER.

Calyx spreading. *Corolla* with upright claws. *Gland*
as in *Brassica*.

SPECIES.

Sinapis nigra. Common Mustard.

Lin. spec. 933. *fl. suec. n.* 611. *mat. med.* 164.
Huds. angl. 297, *With. arr.* 713. *Light. scot.*
361. *Relb. cant. n.* 495. *Ray syn.* 295.—Figured
in *Blackw. herb. t.* 446. *Baub. hist. 2.* 855.
Woodv. med. bot. t. 151.—Described by *Pollich*
pal. n. 643. *Krock. files. n.* 1102. *Villars dauph.*
339. *Woodv.* 409. *Baub. hist. Raii hist.* 803. 3.
Ger. emac. 243. *Withering, &c.*

SPECIFIC CHARACTER.

Pods smooth, pressed close to the raceme.

DESCRIPTION.

ROOT annual. Stem, round, striated, the upper part
smooth, three or four feet in height, with many distant
spreading branches. Leaves next the root rough, on the

stem smooth, the uppermost frequently simple, lanceolate, sharply toothed. Calyx yellow. Corolla pale yellow. Pods short, parallel to the stem, with a smooth beak; the peduncles are slightly hairy.

Johnson's description is exact. "Our ordinarie Mustard hath leaves like Turneps, but not so rough, the stalks are smooth, and grow sometimes to three, four, or five cubits high; they have many branches, and the leaves upon these branches, especially the uppermost, are long and narrow, and hang downward on small stalks; the cods are short, and lie flat and close to the branches, and are somewhat square: the seed is reddish or yellow*."

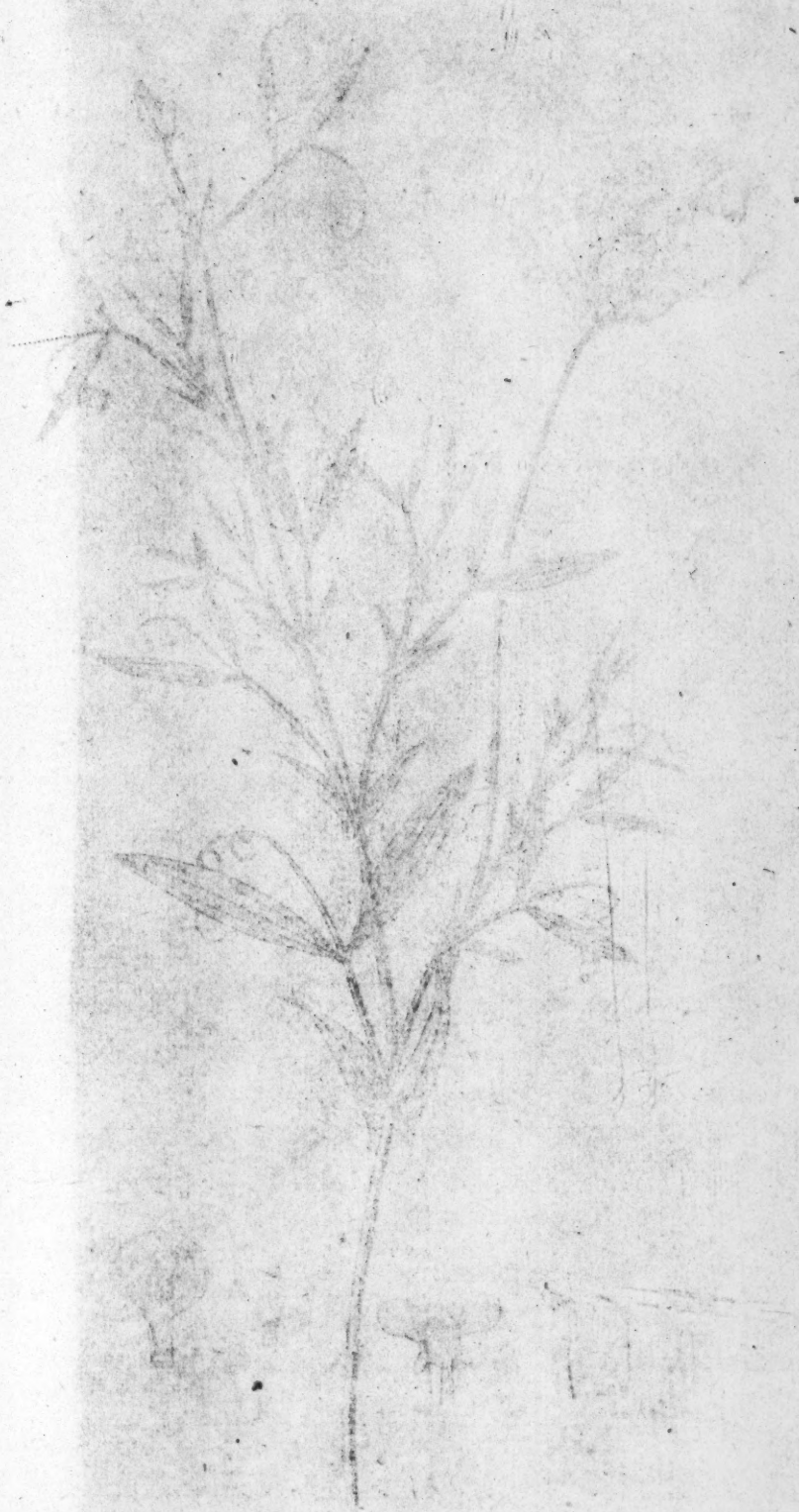
Ray's distinctions are also good ones.—"It is a loftier plant than White Mustard or Charlock; the upper part of the stem and the branches are smooth; the pods short, pressed close to the stem, and almost quadrangular; the seeds are the smallest among these plants†." We may add, that the leaves are of a much darker colour, and their divisions blunter than in the White Mustard; the flowers are smaller, and the pods smooth.

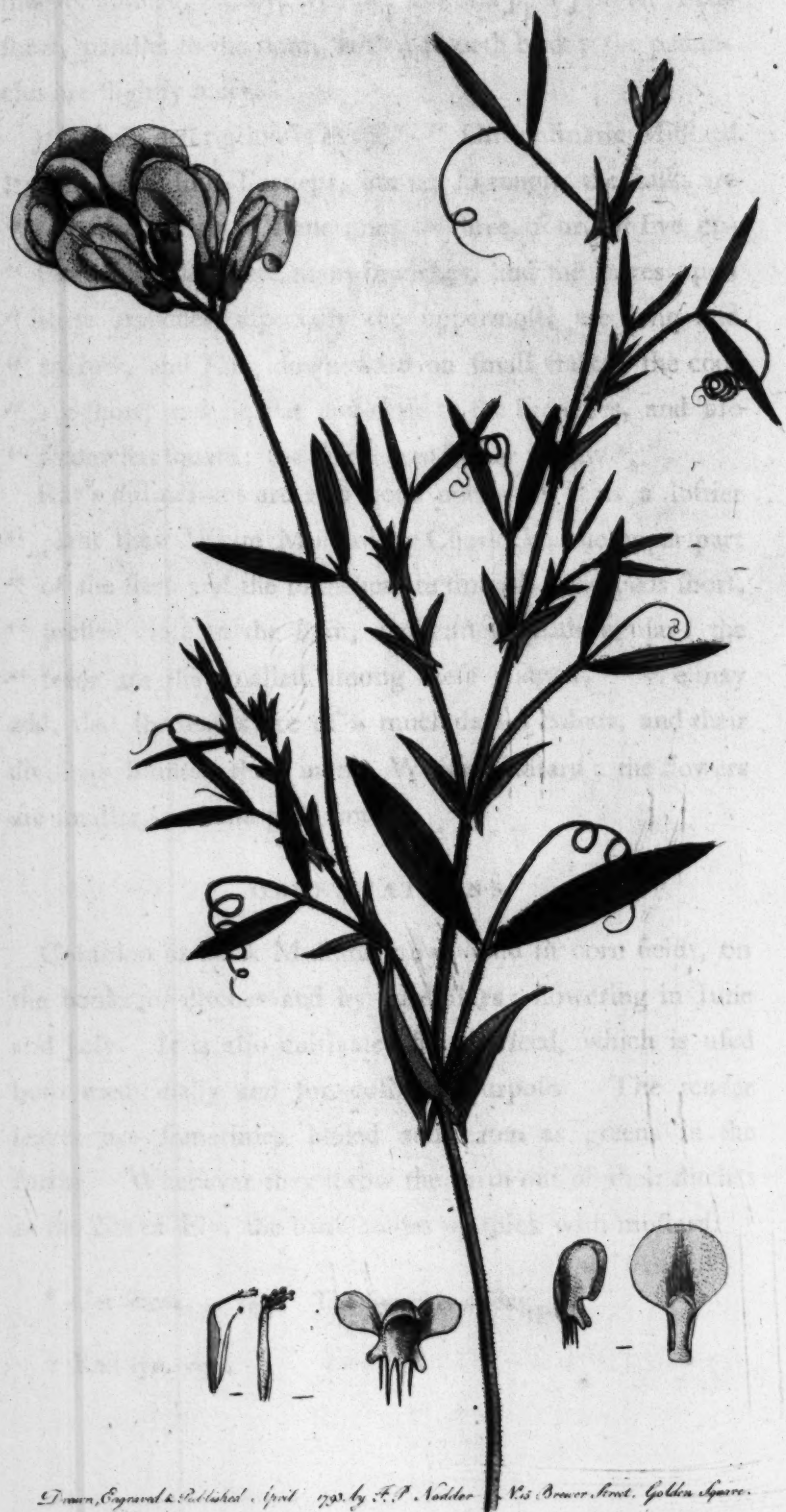
OBSERVATIONS.

Common or black Mustard grows wild in corn fields, on the banks of ditches and by road sides; flowering in June and July. It is also cultivated for the seed, which is used both medicinally and for culinary purposes. The tender leaves are sometimes boiled and eaten as greens in the spring. Whenever they throw the earth out of their ditches in the Isle of Ely, the bank comes up thick with mustard.

* Ger. emac. p. 243. The figure is wrong.

† Raii syn. 295.





Drawn, Engraved & Published April 1793 by F. P. Nodder. Vis. Brewer, Street, Golden Square.

LATHYRUS.

DIADELPHIA Decandria.

GENERIC CHARACTER.

Calyx the two upper segments shorter than the other three. *Style* villous on the upper part, broader upwards.

SPECIES.

Lathyrus pratensis. *Meadow Lathyrus.*

Lin. spec. 1033. *fl. suec. n.* 647. *Huds. angl.* 317. *With. arr.* 717. *Light. scot.* 391.—Figured in *Curtis lond.* 3. t. 44. *Rivin. tetr. t.* 43. *Fl. dan. t.* 527. *Mor. hist. f.* 2. t. 2. f. 2. *Bauh. hist.* 2. 304. 2. *Lob. ic.* 2. 69. 2. *Ger. emac.* 1231. 6. *Park. theat.* 1061. f. 1.—Described in *Hall. belv. n.* 436. *Pollich pal. n.* 679. *Krock. files. n.* 1165. *Villars dauph.* 443. *Raii hist.* 894. 4. *Baubin, Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Peduncles many-flowered, tendrils two-leaved, quite simple, (sometimes with two or three clefts) leaflets lanceolate.

DESCRIPTION.

ROOT perennial, creeping. Stems a foot or eighteen inches, and sometimes three feet in length, or more, when without support procumbent, but mounting by means of tendrils, and having the appearance of being upright in meadows, and especially among bushes; they are obtusely quadrangular, and much branched. Leaves in pairs, lanceolate, quite entire, smooth or slightly villous underneath only, marked with three nerves, on triangular furrowed footstalks. Stipules in pairs, large, shaped like the head of a halbert, or half the head of an arrow, frequently having sharp processes at the base. Flowers in a raceme, directed one way, from 4 or 5 to 8 or 10, on axillary peduncles four or five inches long, four-cornered; each on a hairy pedicel, with a very minute awl-shaped bracte at the base. Calyx one third of the length of the corolla, divided half way into five awl-shaped segments, which are rather unequal, and somewhat hairy. Corolla yellow. Legumes an inch and half long, compressed, smooth, black, containing from 7 or 8 to 12, globular, shining seeds, of a yellowish or brown colour, with small purple dots.

OBSERVATIONS.

It grows very frequently in pastures, woods, thickets, and hedges, flowering from June to August.

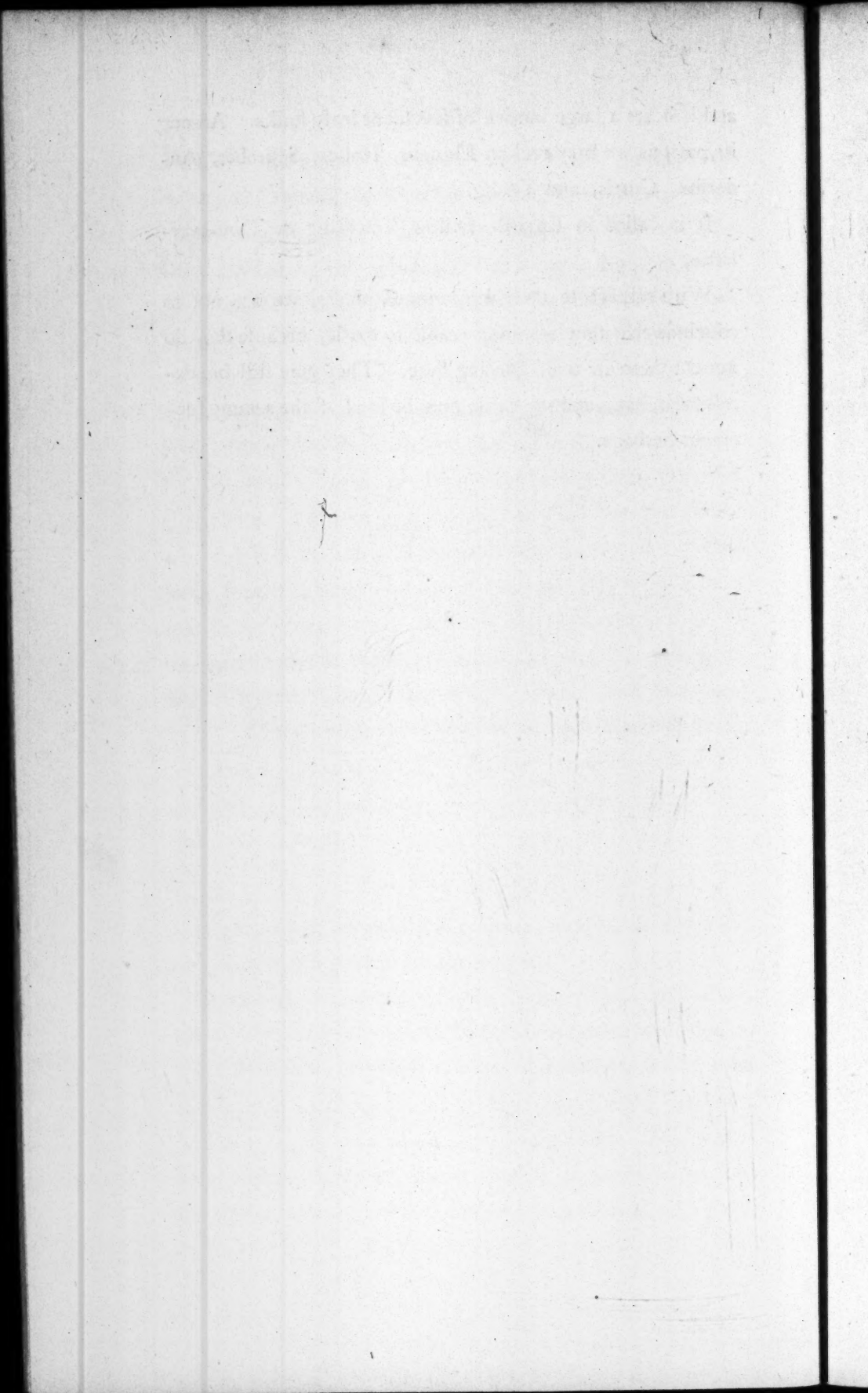
According to Linneus, Horses, Kine, Sheep, and Goats, eat it. Swine refuse it, and the Badger is said to feed upon it.

In old authors this plant is much reprobated as a vile weed that spreads much by means of its creeping roots; and Mr. Miller will not have it admitted into gardens. Many modern writers, however, recommend it as an excellent food for cattle, and not without reason, since its quality is good,

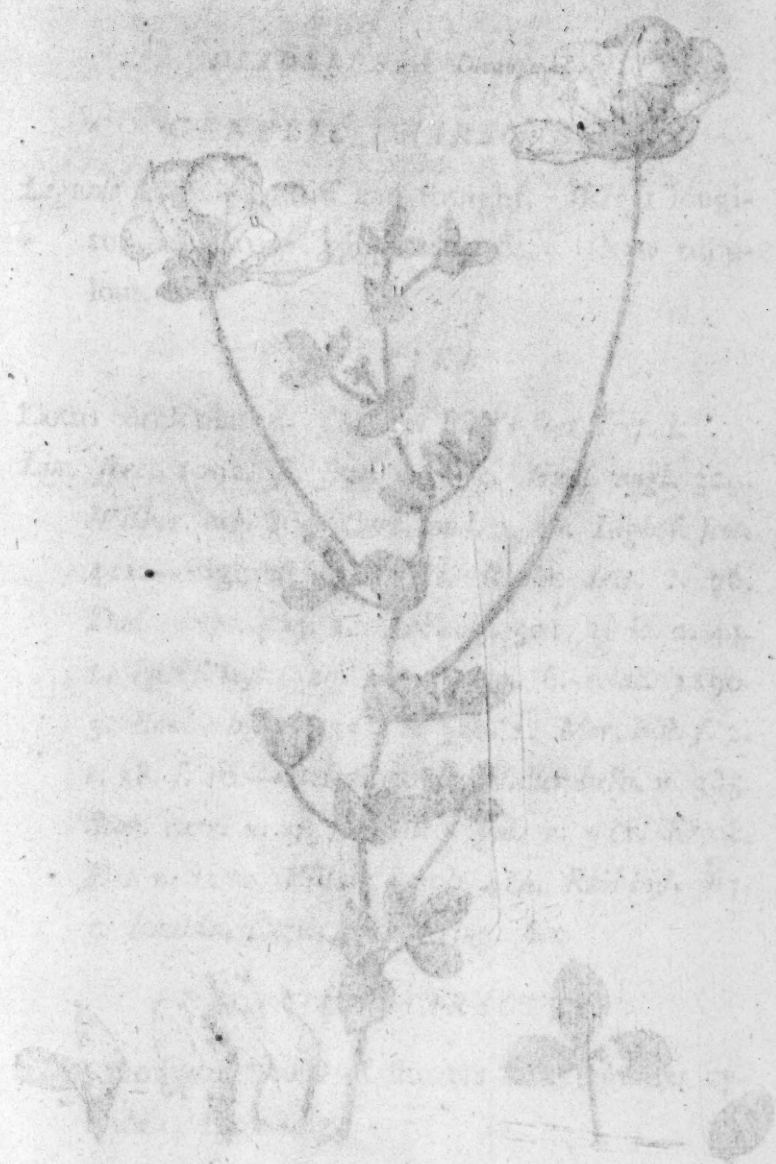
and it bears a large burden of succulent leafy stalks. Among its patrons we may reckon Linneus, Haller, Schreber, Anderson, Curtis, and Young.

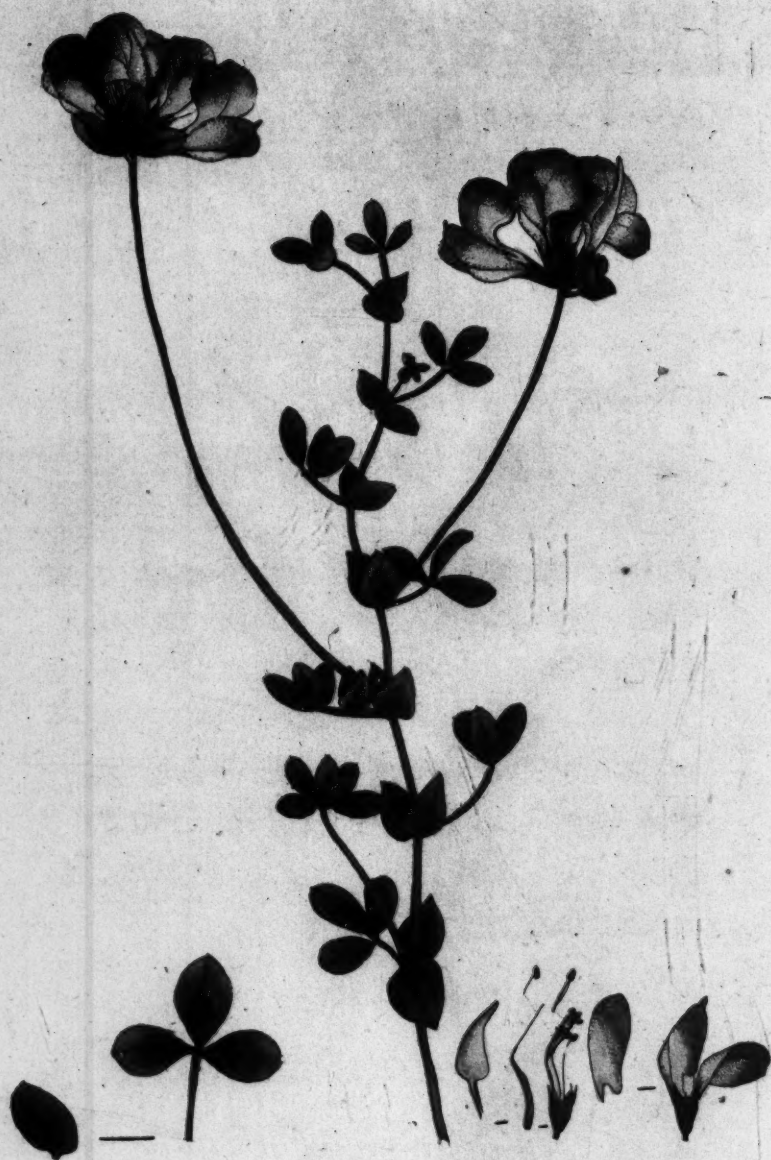
It is called in English Yellow Vetchling or Tare-everlasting.

With respect to these leguminous plants, we are not to conclude that they are disagreeable to cattle, because they do not eat them in their fruiting state. They may still be excellent in hay, and the cattle may be fond of the young succulent herbage.



LOTUS





Drawn, Engraved & Published April 1893 by F. P. Nothman & Co. Boston Street, Golden Square.

LOTUS.

DIADELPHIA *Decandria.*

GENERIC CHARACTER.

Legume cylindric, stiff and straight. *Wings* longitudinally converging upwards. *Calyx* tubulous.

SPECIES.

Lotus corniculatus. *Common Bird's-foot Trefoil.*

Lin. spec. 1092. *fl. suec. n.* 675. *Huds. angl.* 329.
Wither. arr. 804. *Curt. lond.* 2. 56. *Lightf. scot.*
 411.—Figured in *Curtis. Rivin. tetr. t.* 76.
Dod. pempt. 573. 2. *Lob. obs.* 501. 2. *ic.* 2. 44.
 1. *Fuchs. hist.* 527. *Ger.* 1022. 6. *emac.* 1190.
 5. *Bauh. hist.* 2. 355. & 356. 1. *Mor. hist. f.* 2.
 1. 18. *f.* 10.—Described in *Haller helv. n.* 385.
Scop. carn. n. 937. *Pollich pal. n.* 711. *Krock.*
files. n. 1219. *Villars dauph.* 414. *Raii hist.* 967.
 5. *Bauhin, Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Stems prostrate, heads of flowers flat, legumes cylindric, spreading.

DESCRIPTION.

ROOT perennial. Stems slender, bluntly four-cornered, generally procumbent, but in meadows upright or nearly so, from 6 or 7 inches to a foot and half in height, in different soils and situations, and in the several varieties. Leaves ternate, differing extremely in form in the varieties from bluntly-ovate to linear-lanceolate. The stipules vary as the leaves do; they are broader however, and more pointed. The flowers grow in flattened heads, resembling umbels, on peduncles two or three inches long, but on pedicels hardly a line in length; there is a single sessile leaf at the base of each head. Calyx fringed with long soft hairs. Corolla, before it opens, of a bloody red on the outside, and of a yellowish green within; when expanded of a full yellow: all the petals are equal, and stand each on narrow separate claws; the standard is bent back, and the wings are oblong-ovate. Legumes smooth, spreading like the spokes of a wheel, and ending in a long straight point. Seeds many, sometimes more than twenty, small, somewhat kidney-shaped and spotted.

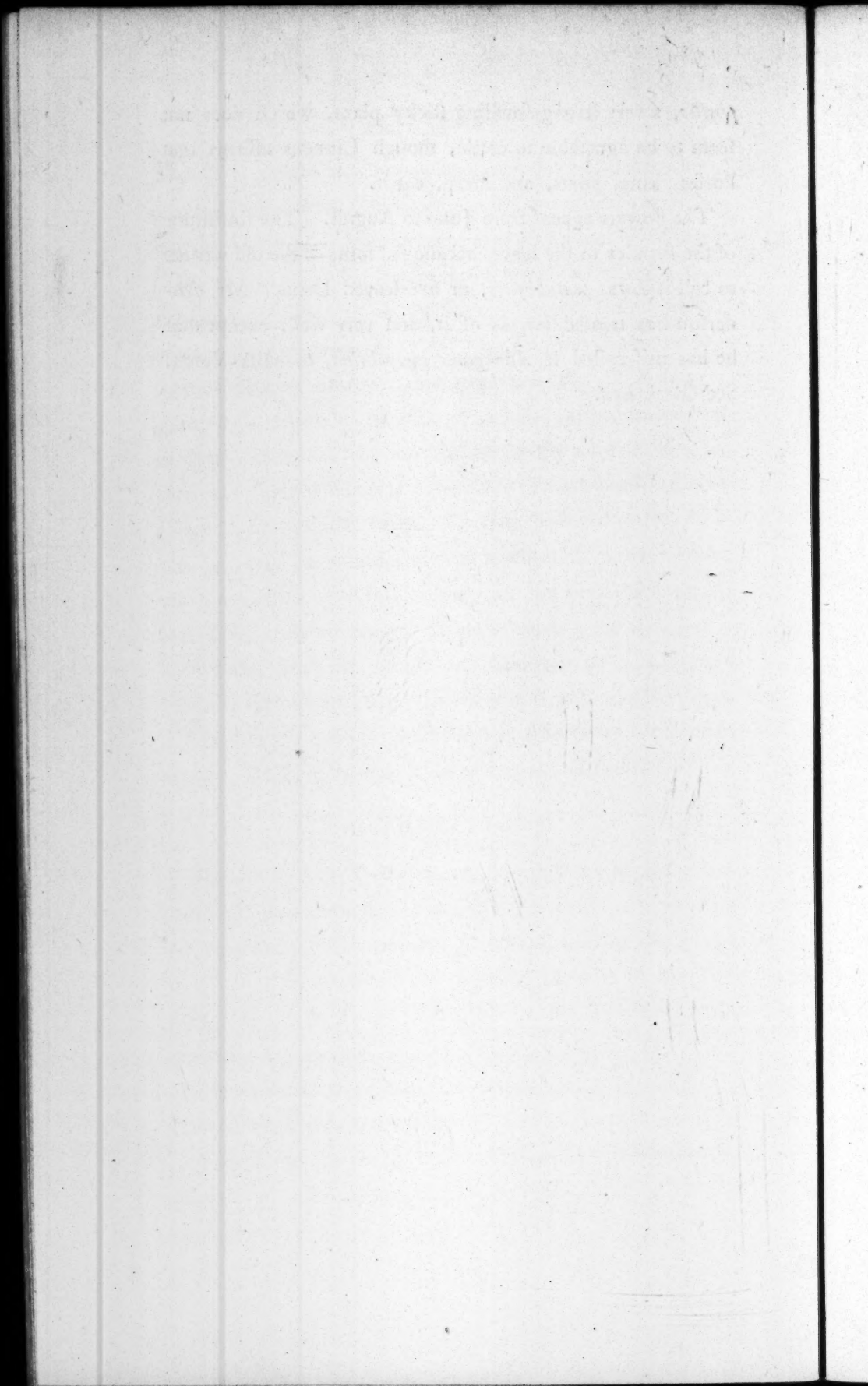
OBSERVATIONS.

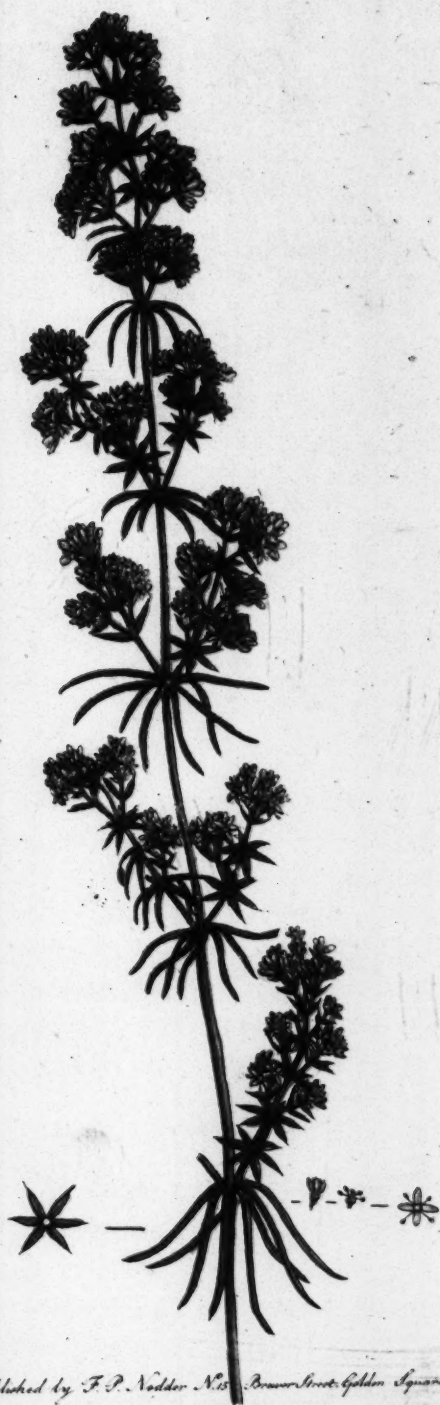
The Bird's-foot Trefoil is another instance of the excellence of leguminous plants as a food for cattle. It is common in good pastures, where it grows to a considerable height, is of a quality equal, if not superior, to most of the Trefoils, contributes to give substance to the hay, and might doubtless be cultivated to good advantage alone. On heaths and dry pastures it is small and procumbent. In woods it is large and upright, but woolly.

This plant has been confounded with Ladies Finger, *Anthyllis Vulneraria*, to which it is much superior in rural oeconomy. And with Liquorice Vetch, *Astragalus glycy-*

phyllos, a very strong-smelling sticky plant, which does not seem to be agreeable to cattle, though Linneus affirms that horses, kine, goats, and sheep, eat it.

The flowers appear from June to August. The similitude of the stipules to the leaves occasioned some of the old writers to call it *Lotus pentaphyllos*, or five-leaved Lotus. Mr. Anderson has treated largely of it, and very well, except that he has mis-called it *Astragalus glycyphyllos*, or Milk-Vetch. See *Curtis lond.*





GALIUM.

TETRANDRIA Monogynia.

GENERIC CHARACTER.

Corolla of one petal and flat. *Seeds* two roundish.

SPECIES.

Galium verum. *Yellow Ladies Bedstraw.*

Lin. spec. 155. *fl. suec. n.* 123. *Huds. angl.* 69. *With. arr.* 155. *Lightf. scot.* 115. *Curtis lond. n.* 63. *Relb. cant. n.* 127.—Figured in *Curtis, Miller fig. t.* 139. *Berg. phyt.* 2. 63. *Plenck. ic. t.* 54. *Fuchsf.* 196. *Bauh. hist.* 3. 720. 1. *Dod. pempt.* 355. 1. *Camer. epit.* 368. *Lob. obs.* 467. 3. *Ger.* 967. 1. *emac.* 1126. 1. *Park. theat.* 564. 1. *Mor. hist. f.* 9. *t.* 21. *f.* 1. *Blackw. herb.* 435. *Petiv. brit. t.* 30. *f.* 8.—Described in *Hall. helv. n.* 710. *Scop. carn. n.* 153. *Pollich pal. n.* 152. *Krock. files. n.* 221. *Raii hist.* 482. *Baubin, Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Leaves eight in a whirl, linear, grooved; flowering branches short.

DESCRIPTION.

ROOT perennial, creeping, yellow. Stem from one to two feet high, upright, slightly four-cornered, somewhat flexuose, scabrous, pubescent, branched towards the top. Leaves about an inch in length, bluntnish with a slight point, narrowed at the base, the edges rolled back, the upper surface dark green and glossy, the under hollowed and paler, from 8 or 10 in a whirl, decreasing to 2 and even 1 at the extremities of the branches. Flowers numerous, small, yellow, fragrant with a peculiar odour, in an interrupted branched panicle, about a span in length *.

It is observed by Dr. Withering, that the segments of the corolla are greatly expanded; that the style is cloven more than half way down; and that not only the corolla, but the stamens also and pistil are yellow. The stamens, as Linneus observes, grow brown after they have shed their dust.

OBSERVATIONS.

This plant is common in pastures, and by the sides of fields and roads, in a dry soil; flowering from June to September. It will flourish in the most unrelenting drought, when not a blade of grass is to be seen. Besides the common names of Ladies Bedstraw and Cheese Rening, Gerard has those of Maid's-hair and Petty Mugwet, the latter from the French *Petit Muguet*. In Johnson's edition of Gerard's Herbal, it is called *Our Ladies Bedstraw*.

It is a notion as old as Dioscorides and Galen, that the flowers and herb of this plant will curdle milk. Though no coagulation followed in experiments which we tried forty years ago, yet we should not perhaps have ventured to dispute the fact, were we not supported by Bergius and Krocke,

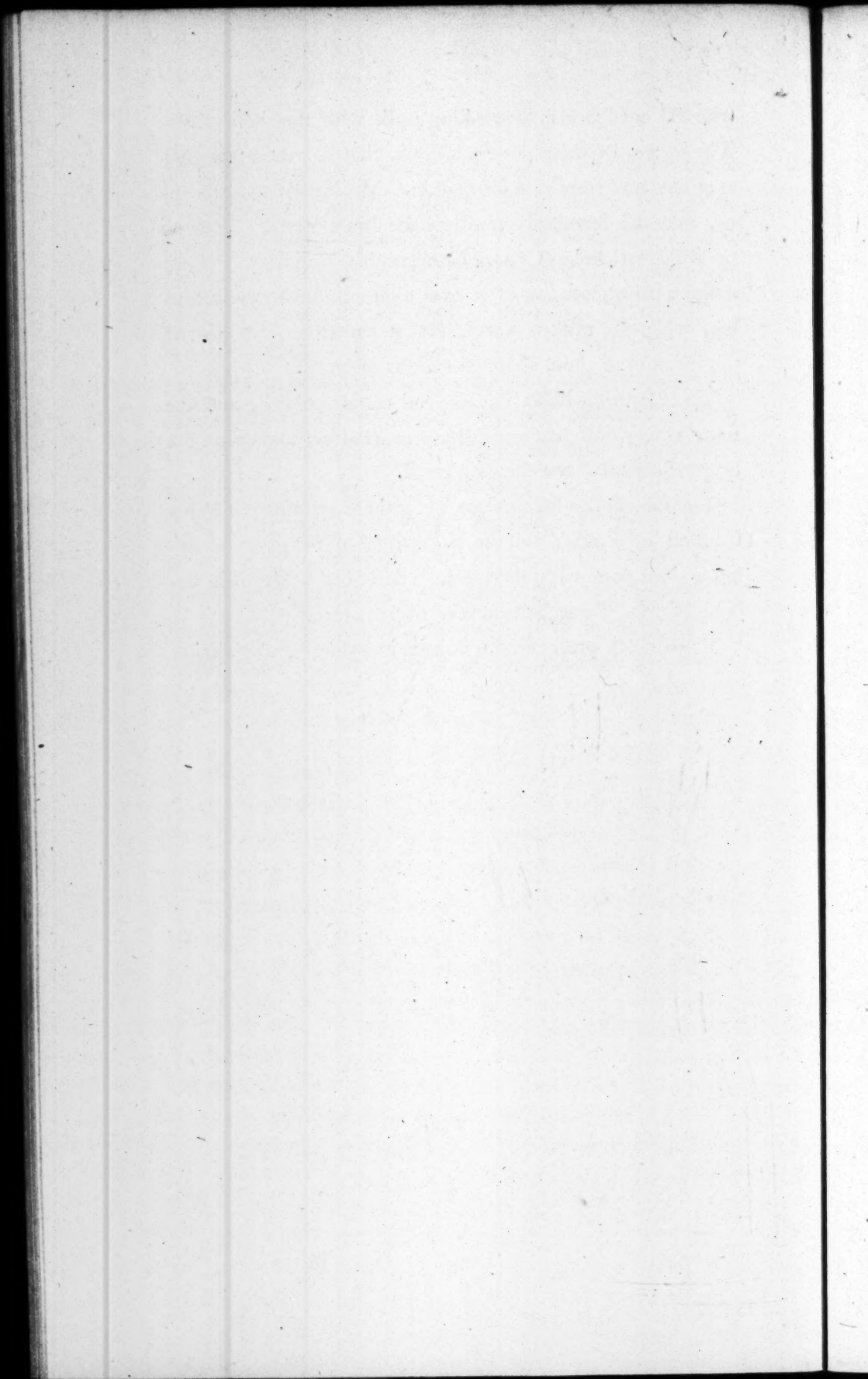
* Curtis fl. lond.

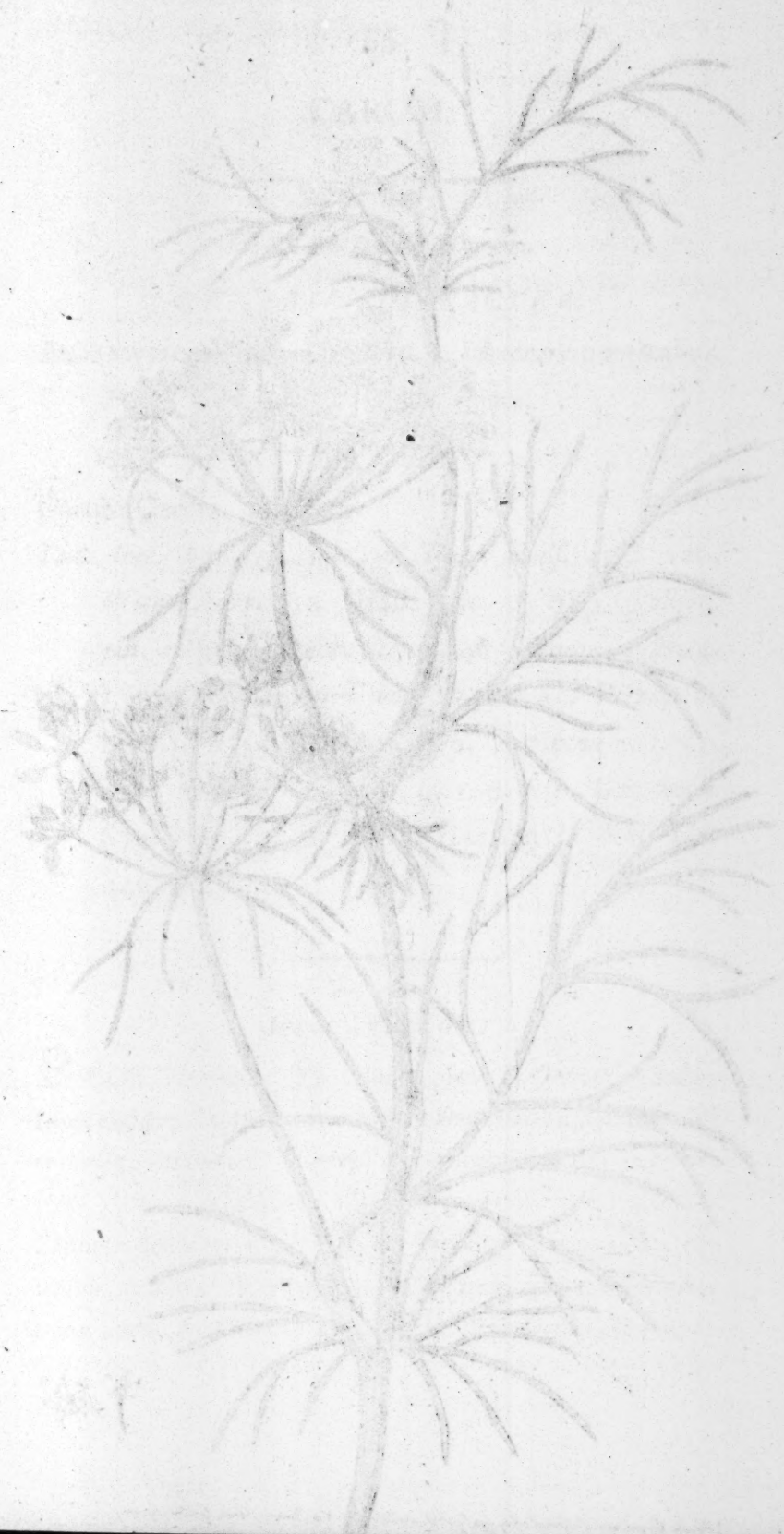
who did not succeed in curdling milk with this herb alone. The former of these writers affirms, that he could not procure any acid from it in distillation. Mr. Townsend informs us, that the Spaniards substitute the down of the Chardoon or Wild Artichoke (*Cynara Cardunculus*) for rennet. They make a strong infusion of it over night, and the next morning, when the milk is warm, they put nearly half a pint of the infusion to about fourteen gallons of milk.

The flowering-stalks dye a good yellow colour ; and the roots a very fine red, not inferior to Madder, and even of a brighter colour ; but they are small.

The subject has been taken up by the Committee of Privy Council for Trade : and the cultivation of the plant for dyeing a red colour with the roots, is described in the 18th volume of Mr. Young's *Annals of Agriculture*.

The French prescribe the flowers in hysteric and epileptic cases.







CARUM.

PENTANDRIA Digyna.

GENERIC CHARACTER.

Fruit ovate-oblong, streaked. *Involucre* one-leafed.

Petals keeled, inflex-emarginate.

SPECIES.

Carum Carui. Caraway.

Lin. spec. 378. *fl. suec. n.* 260. *Huds. angl.* 126.

Wither. arr. 312. *Hall. helv. n.* 789. *Pollich.*

pal. n. 304. *Krock. files. n.* 465. *Jacqu. austr. 4.*

t. 393. *Woodv. med. bot.* 125. *t.* 45. *Plenck. ic.*

t. 214. *Blackw. herb. t.* 529. *Rivin. pent. t.* 55.

Mor. umb. t. 8. *hist. f. 9. t. 9. f. 1.* *Ger. herb.*

879. *emac.* 1034. *Park. theat.* 910. *Raii hist.*

446. *syn.* 213.

DESCRIPTION.

ROOT biennial. The whole plant is smooth. Stalks from eighteen inches to two feet in height and upwards, with spreading branches. Leaves decomposed, long and narrow. The universal involucre is generally one-leafed, as Linneus describes it; but it has sometimes as far as five caducous leaflets. Rays of the umbel from 9 to 12. Florets in an umbellule as far as 20, white or tinged with red; some

of them neutral, according to Linneus; but all fertile, as Dr. Withering affirms.

OBSERVATIONS, &c.

Parkinson says, that the young roots are better eating than parsneps. The tender leaves may be boiled with pot-herbs. The seeds, it is well known, are much used in cakes, and incruſted with ſugar; they are diſtilled alſo with ſpirituous liquors for their flavour. The seeds were formerly recommended by Dioſcorides to pale-faced girls, and in more modern days their uſe in that caſe is not forgotten: nor are they a deſpicable remedy in tertian agues. They abound with an eſſential oil, which is antiſpaſmodic and carminative*. One ounce in thirty of this oil ariſes in diſtillation from the ſeeds; whereas 16 pounds of the herb in flower, ſtripped from the ſtalks, ſcarcely yields an ounce †.

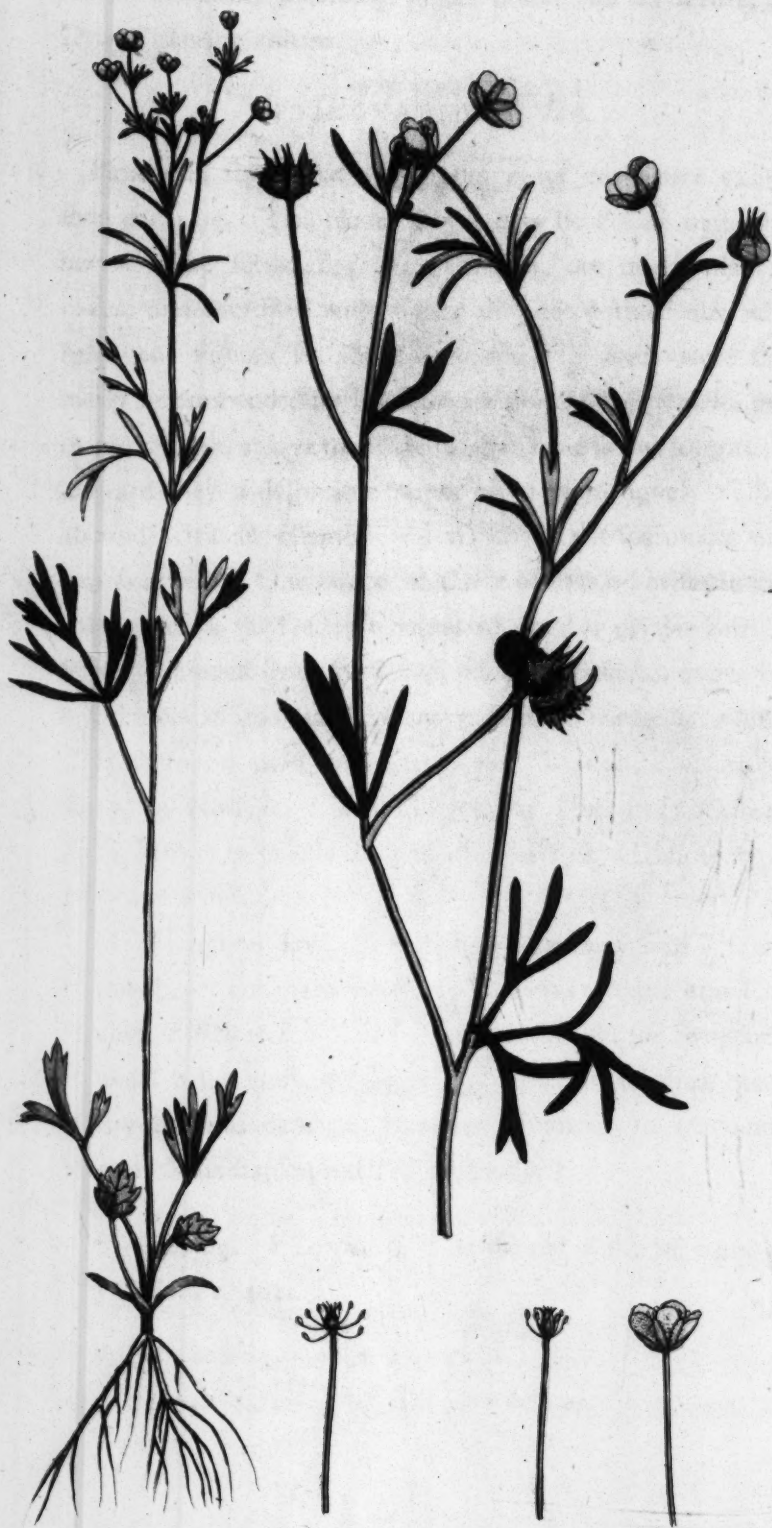
Schreber affirms that the Caraway is excellent food for kine. It is found wild in paſtures near London, Cambridge, Bury, in Norfolk, Lincolnſhire, near Hull in Yorkſhire, &c.—But it is chiefly cultivated in Eſſex. It flowers in May and June.

Mr. Houghton ſays, “ Although Carraway-ſeed is ſcarce now ‡, yet not many years ſince a friend of mine near Colcheſter produced ſo much, that it was ſold for twopence, and I believe leſs, the pound. I am afraid his great quantity did him damage; however I believe 'tis made now “ one of the ſtaple pieces of huſbandry ||.

* Withering. † Lewis. ‡ “ At the end of the laſt century.”

|| Collect. 2. 462.





RANUNCULUS.

POLYANDRIA Polygynia.

GENERIC CHARACTER.

Calyx five-leaved. *Petals* five, with a honied pore
at the claw of each within. *Seeds* naked.

SPECIES.

Ranunculus arvensis. Corn Crowfoot.

Lin. spec. 780. *Hudf. angl.* 242. *Wither. arr.* 576.
Hall. helv. n. 1176. *Scop. carn. n.* 693. *Pollich.*
pal. n. 537. *Krock. files. n.* 885. *Fl. dan. t.* 219.
Mor. hist. f. 4. *t.* 29. *f.* 23. *Petiv. brit. t.* 38. *f.*
10. *Ger. herb.* 805. 3. *emac.* 951. 3. *Park.*
theat. 328. 4. *Raii hist.* 585. 1. *fyn.* 248.

SPECIFIC CHARACTER.

Seeds prickly; upper leaves decom pound, linear.

DESCRIPTION.

THIS species is easily distinguished from the Meadow
Crowfoots already figured, by its annual root and prickly
seeds. The stalk is upright, a foot high or more, leafy,
round, smooth, except towards the top, where it is pubes-
cent, branching. Root-leaves trifid, broader than the

others, and on longer petioles: stem-leaves alternate, usually three-parted, with the lobes again deeply divided into two or three parts. Flowers very small, brimstone-coloured. Stamens 14-16. Seeds 5 or 6 (sometimes 8 or 9) flat, covered with awl-shaped prickles.

OBSERVATIONS.

Corn Crowfoot abounds among crops of all kinds in most parts of Europe. It flowers in May and June; and has seeded before harvest. Linneus affirms that the seeds do not come up till the second year. It is said to be as highly acrimonious, when fresh, as any of the species. In some countries it has the name of *Hungerweed**; whence we should presume, that it is supposed to indicate a barren soil.

It were much to be wished that these vernacular names could be collected together; for till that is done, there will never be an understanding between theoretical and practical men.

* Hollefeare in Withering.





Drawn, Engraved & Published May 1895 by F. & P. Vadder, 15, & 16, Broad Street, Golden Square.

SISYMBRIUM.

TETRADYNAMIA *Siliquosa.*

GENERIC CHARACTER.

Siliqua or pod opening with straightish valves. *Calyx* and *Corolla* spreading.

SPECIES.

Sisymbrium Sophia. *Flixweed.*

Lin. spec. 920. *Huds. angl.* 297. *Wither. arr.* 693.
Hall. helv. n. 484. *Scop. carn. n.* 821. *Pollich.*
pal. n. 629. *Krock. files. n.* 1064. *Fl. dan. t.* 528.
Blackw. herb. t. 440. *Ger. herb.* 910. 1, 2. *emac.*
1068. *Park. theat.* 830. 3. *Petiv. brit. t.* 46. f.
12. *Raii hist.* 812. *syn.* 298.

SPECIFIC CHARACTER.

Petals smaller than the *calyx*. *Leaves* decomposed-pinnate.

DESCRIPTION.

ROOT slender, annual. Stalk upright, round, a foot and half or two feet high, branched very much. Leaves, considered in the whole, triangular, three inches long and upwards, two inches broad, very minutely divided ; the last

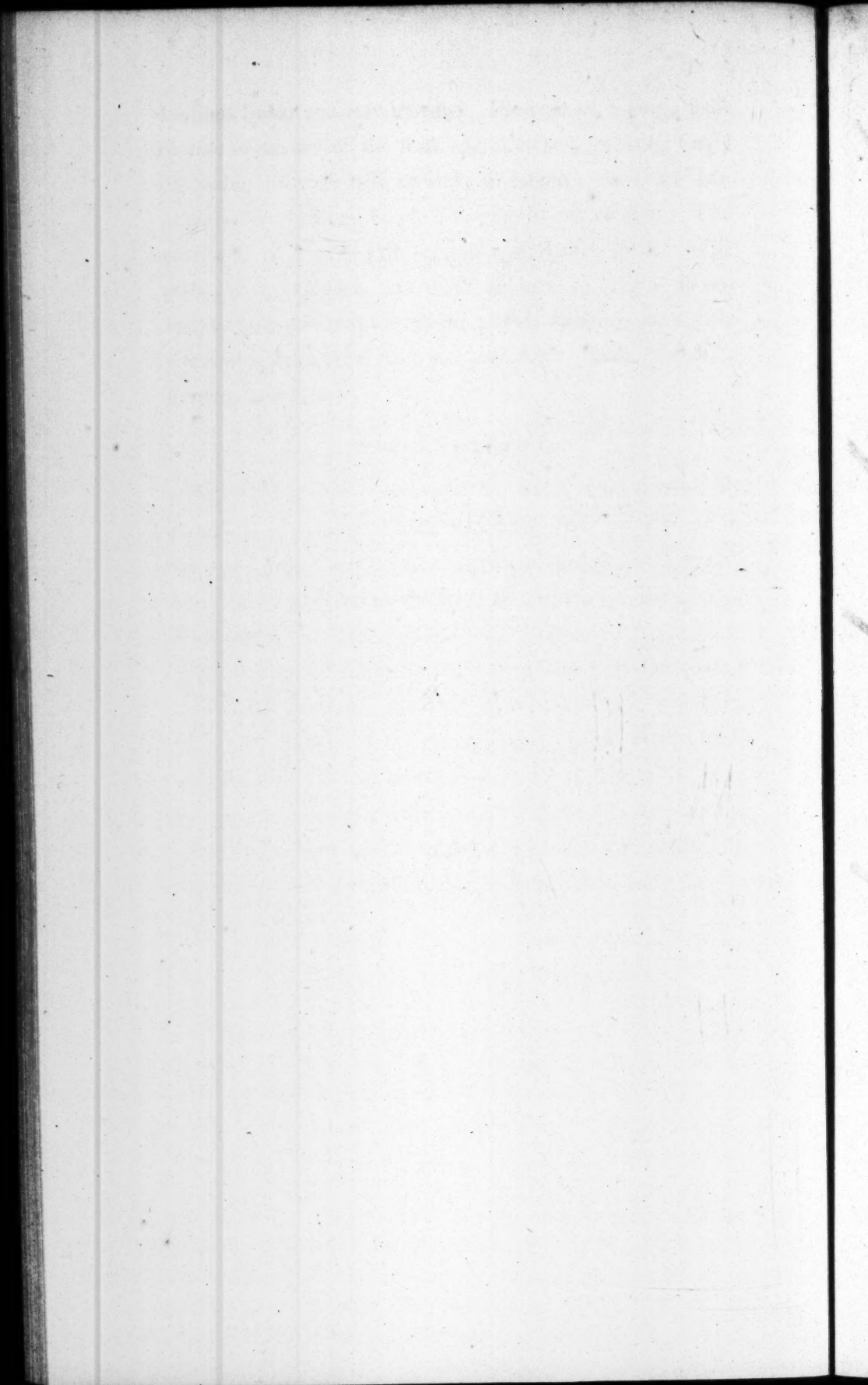
divisions linear and very narrow. Flowers in a long, loose raceme at the end of the stalk and branches, growing singly on peduncles near half an inch in length; there are frequently more than an hundred flowers in one raceme. The corolla is of a pale yellow, and remarkably small. The pods are very slender, about half an inch in length, so obscurely four-cornered as to seem round, swelling out a little where the seeds are; these are numerous, small, roundish, smooth, and yellow.

OBSERVATIONS.

Flixweed is not uncommon on walls, among rubbish, about church-yards, hedges, dunghills, &c. It flowers in June and July; and ripens its seeds in August and September. The pods retain the seeds all winter, for the food of small birds.

According to Linneus, sheep and kine eat the plant; horses and goats are not fond of it; and swine refuse it. With us it seems seldom to be cropped by cattle, except from wantonnefs. The force of gunpowder is said to be augmented, by mixing a tenth part of Flixweed seeds with the other ingredients. The plant is sometimes prescribed in dysenteries and hysteric cases: and the seeds are given to destroy worms*.

* See Lin. suec. Withering, Chomel, &c.







Drawn, Engraved & Published June 1793, by P. R. Vindler, V. 15. Bonner Street, Golden Square.

CROCUS.

TRIANDRIA Monogynia.

GENERIC CHARACTER.

Cor. six-parted, equal. Stigmas convolute.

SPECIES.

1. *Crocus officinalis*. Saffron, or autumnal *Crocus*.

Lin. spec. 50. *α. mat. med.* 43. *Woodv. med. bot.* 479.
t. 176. *Hudsf. angl.* 13. *α. Wither. arr.* 37. *α.*
Relh. cant. n. 27. *Bauh. pin.* 65. *Bauh. hist.* 2.
 637. *Raii hist.* 1176. *syn.* 374.—Figured in
Mill. fig. t. 111. *Mill. illustr. Berg. phyt.* 2. *t.*
 161. *Plenck, ic.* 32. *Blackw. t.* 144. *f.* 1. *Mor.*
hist. f. 4. *t.* 2. *f.* 1. *Ger.* 123. *f.* 1, 2. *emac.* 151.
Park. parad. 169. *f.* 2.

SPECIFIC CHARACTER.

Leaves narrower, rolled in at the edges; stigma trifid
 to a considerable length.

DESCRIPTION.

SAFFRON differs from the Spring *Crocus* in having the stigma divided into three very long segments, the ends of which are also trifid: these three horns of the stigma are also

odorous and aromatic, which is not the case in that. The flowers are much larger, and do not vary in colour so much as in the Vernal Crocus, from their high native purple. They differ also in their roots and leaves, the time of flowering, and place of growth.

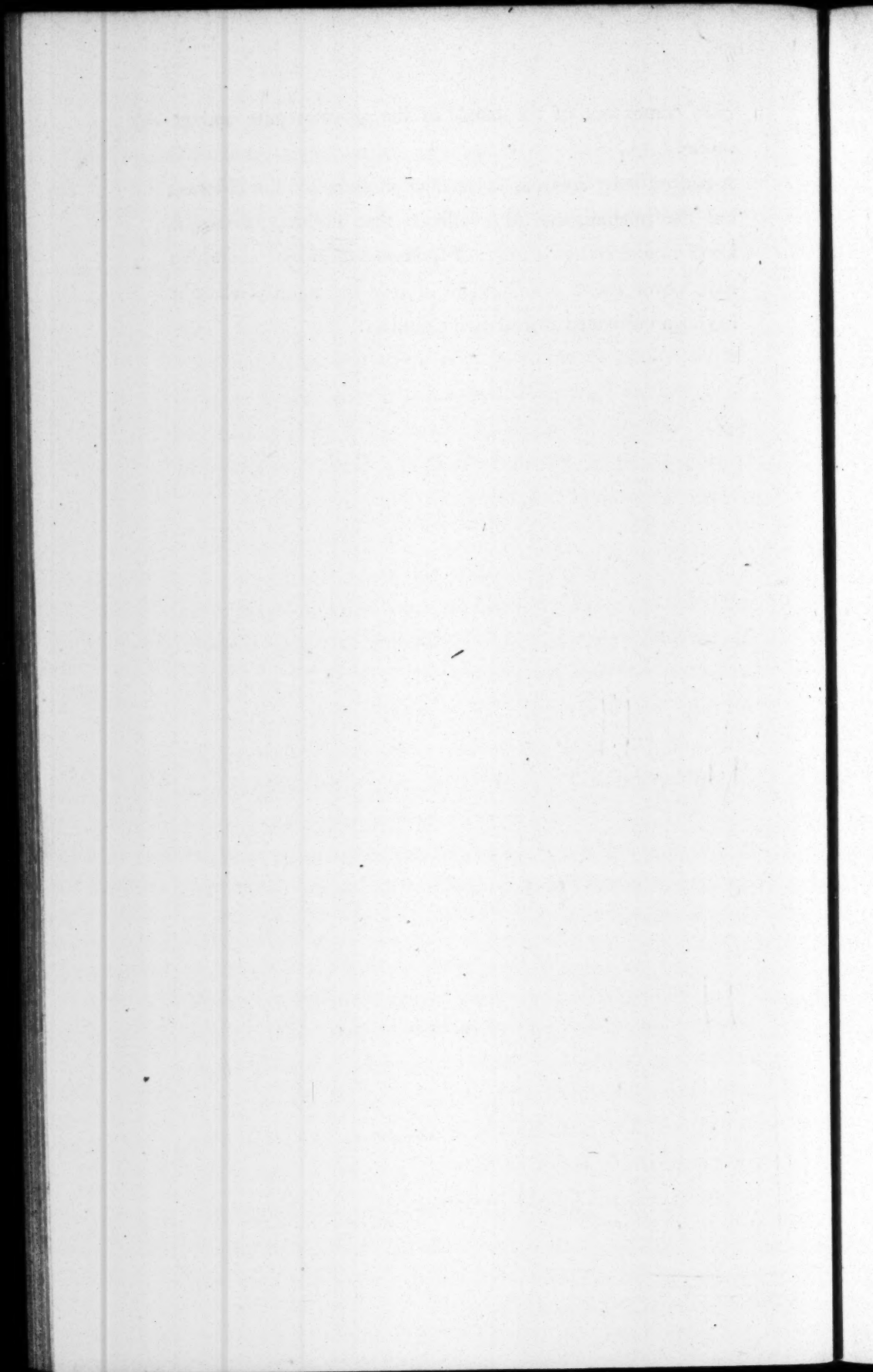
OBSERVATIONS.

Saffron came originally, with most other bulbous plants, from the East, where it first acquired that high reputation in medicine which it has now almost lost in Europe. Our European term for it is evidently from the Arabic *Sahafaran*, It is cultivated in Italy, Sicily, Spain, France, Germany, Hungary, and England.

It is commonly said that Saffron was originally brought into England in the time of Edward III.; and that Sir Thomas Smith introduced it into the neighbourhood of Walden in Effex. We cannot find any sufficient authority for either of these assertions. It is certain that it has been cultivated in Herefordshire and Hampshire, and that it is now confined to a very small district in Cambridgeshire, at the foot of Gogmagog hills. It was planted abundantly near Walden at the end of the sixteenth, and at the beginning of the seventeenth centuries. It migrated gradually into Cambridgeshire between the years 1695 and 1723, when the place of its growth was the large tract of ground between Saffron Walden and Cambridge, in a circle of about ten miles diameter. The quantity of ground under Saffron has been gradually lessening during the last twenty-five years; and if some means are not found to encourage it, this object of culture will probably soon be lost to this country, and we shall be wholly at the mercy of foreign dealers in this commodity, who sophisticate it with Safflower, Marygolds, &c.; whereas

ours comes out of the hands of the growers pure and genuine.

Saffron is set down as indigenous in some of our Floras ; but the indefatigable Ray affirms that nothing certain is known concerning its place of spontaneous growth ; and we have never found a wild plant of it in the country where it has been cultivated at least two centuries.





Drawn, Engraved & Published June 1793. by F. P. Nodding

N. 15. Brewer Street, Golden Square.

SPECIES.

2. *Crocus vernus*. *Spring Crocus*.

Lin. spec. 50. β . *Huds. angl.* 13. β . *Wither. arr.* 38. β .
Hall. helv. n. 1257. *Scop. carn. n.* 47. *Allion.*
pedem. n. 309. *Raii hist.* 1173.—1176. *Baub.*
pin. 65, 66. 1—11 & 1—6. Figured in *Jacqu.*
austr. 5. *app. t.* 36. *Berg. phyt.* 2. 159. *Curtis,*
magaz. t. 45. *Blackw. t.* 144. *f.* 2. *Clus. hist.*
1. 205. 2. *Ger. herb.* 125. 1. *emac.* 156. 12. &
153. 1. *Park. parad.* 161—167. *t.* 163.

SPECIFIC CHARACTER.

Leaves broader, with flat edges; stigma very shortly trifid.

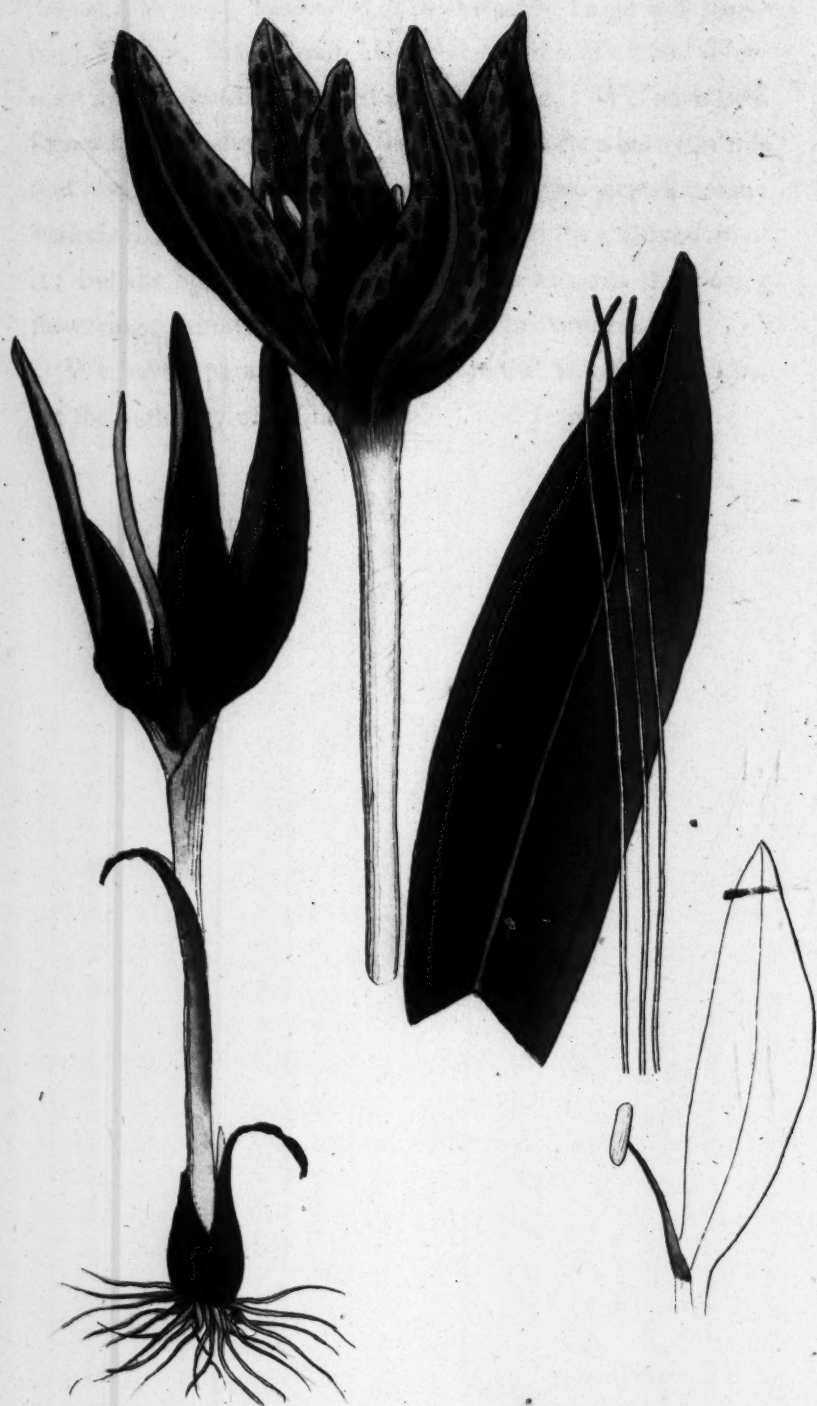
DESCRIPTION, &c.

SPRING CROCUS, in its wild state, is most commonly white, with a purple base, in Switzerland, according to Haller. Purple or white in Austria, according to Jacquin. Gesner gathered it with a yellow flower, on the mountains of Glarus. It is a native also of Carniola, Italy, Spain, &c. In England it is not properly indigenous, although Dr. Deering found it near Nottingham; and we observed it in considerable quantity, above forty years ago, in Battersea meadow, near the mill.

The varieties of Spring Crocus are very numerous. Parkinson has twenty-seven, all of which he has named and de-

scribed particularly. The most common now in our gardens are, the Scotch, beautifully striped; the Blue; the Blue-striped; White; Yellow of several shades, larger and smaller; Yellow, striped with black, and Cloth of Gold. New ones are constantly imported from Holland. We have preferred figuring the Blue, to show the difference between this and the true Saffron, which probably might yield as many varieties, if equal pains were bestowed on the cultivation of it; but the Spring Crocus is valuable on account of its early flowering; whereas Saffron blows late in Autumn.

We have separated the Vernal from the Autumnal Crocus, on the authority of Miller, Haller, and Jacquin.



Drum. n. Engestr. & Sallstedt. Jan. 1842. by F. P. Wulker. V. 2. Bremer. Secret. Golden Square.

COLCHICUM.

HEXANDRIA Trigynia.

GENERIC CHARACTER.

Cal. a spathe. *Cor.* six-parted, with a rooted tube.*Caps.* three, connected, inflated.

SPECIES.

Colchicum autumnale. Common Meadow Saffron.

Lin. spec. 485. *mat. med.* 100. *Huds. angl.* 175. *With.*
arr. 379. *Lightf.* 192. *Hall. helv. n.* 1255. *Scop.*
carn. n. 448. *Pollich, pal. n.* 366. *Leers, her-*
born. n. 271. *Allion. pedem. n.* 433. *Krock. files.*
n. 577. *Raii hist.* 1170. *Baub. pin.* 67. Figured
 in *Storck. monogr. Blackw. t.* 566. *Berg. phyt. t.*
177. Plenck. ic. t. 279. *Woodv. med. bot. t.* 177.
Baub. hist. 2. 649. *Mor. hist. f. 4. t. 3. f. 1.*
Petiv. brit. t. 67. *f. 2.* *Park. parad.* 153. *Ger.*
127. f. 1, 2. emac. 157. 1, 2.

SPECIFIC CHARACTER.

Leaves flat, lanceolate, erect.

DESCRIPTION.

THE bulb is about the size and shape of the Tulip, but not so sharp pointed, and the skin is of a darker colour.

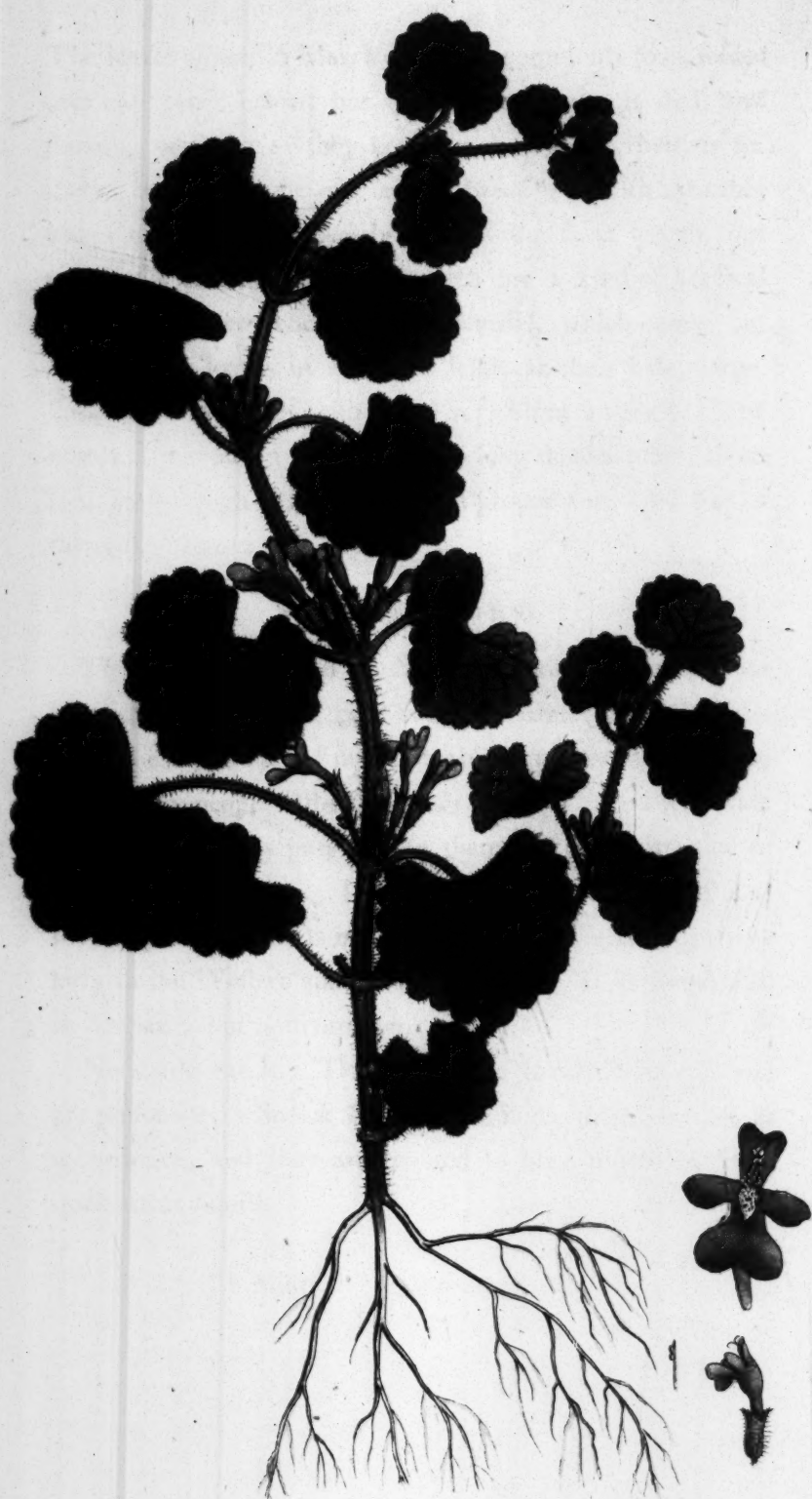
The leaves appear in March; they are commonly four, folded over each other below, but spread open above ground, and standing cross-ways; they are of a deep green, five or six inches long, and one and a half broad*. With the other leaves one or two generally arise of the same length, but only one fourth of the width, which are a kind of bracteal leaves to the seed-bud. The seed-vessel, which comes out between the leaves in April, is sessile at their base, large, somewhat ovate, but with three very blunt angles†. The flowers come out in Autumn, with long slender tubes, about four inches high; their number in proportion to the size of the roots, from 2 to 7 or 8.

OBSERVATIONS.

The seeds lye buried all Winter within the bulb, grow up in Spring, and are ripe about the time of hay harvest. From the appearance of the flowers in Autumn without leaves, the country people call them *Naked Ladies*. In a wild state they are commonly purple; but there are many varieties of colour in the gardens. It is a native of most parts of Europe in pastures, and is not uncommon in England, particularly in the Western and Northern parts. It is found also in Scotland, but not common.

No cattle eat it. The roots have much acrimony, and are poisonous. Storck however, brought them into use as a medicine, and they are reputed to have much the same qualities as Squill.

* Miller. † Woodward M. S.



Desmodium Cynosuavis & Published July 1884 by E. P. Vowler, Nos. Brewer Street, Golden Square.

GLECHOMA.

DIDYNAMIA *Gymnospermia*.

GENERIC CHARACTER.

Calyx five-cleft. Each pair of *Anthems* converging in form of a cross.

SPECIES.

Glechoma hederacea. *Ground Ivy*.

Lin. spec. 807. *fl. suec. n.* 518. *Huds. angl.* 254.

Wither. arr. 603. *Curtis lond.* 2. 44. *Lightf.*

scot. 307. *Woodv. med. bot.* 84. t. 28. *Pollich.*

pal. n. 554. *Fl. dan. t.* 789. *Hall. helv. n.* 245.

(*Chamæclema*) *Ger. herb.* 705. *emac.* 856. 1.

Park. theat. 677. *Mor. hist. f.* 11. t. 21. f. 1. *Ri-*

vin. mon. t. 67. 2. *Blackw. t.* 225.

DESCRIPTION.

ROOT perennial. Stems trailing, putting forth roots at the joints. Leaves kidney-shaped, crenate or scalloped about the edge. The flowering-stalks spring from the joints, are upright and hairy, from four to six inches high. The peduncles are short and branched, supporting from three to five blue flowers, the middle segment of the lower lip marked with purple spots, and hairy at the base. The stamens are frequently found imperfect, but when they are perfect, the

anthers, after bursting, form a cross, or the shape of the letter X.

OBSERVATIONS.

Ground Ivy is common under hedges, on banks, in woods, and sometimes in dry pastures; flowering in April, May, and June. Linneus affirms that it gradually expels plants which grow near it, and thus impoverishes pastures. He says that sheep eat it, that horses are not fond of it, and that kine, goats, and swine, refuse it; it is also reported to be injurious to horses, if they eat much of it. It seems rarely to be touched by any sort of cattle with us. The expressed juice, mixed with a little wine, and applied morning and evening, is said to destroy the white specks on horses' eyes. The leaves were formerly thrown into the vat with ale to clarify it, and to give it a flavour. This was called Gill-ale; but seems to have grown into disuse since the introduction of hops. In obstinate coughs it is still a favourite remedy with the common people, though the London College has discarded it. It is most usually taken in form of an infusion or tea, or the expressed juice with honey. The distilled water is certainly of no service.

An herb so common, and one in so much vulgar esteem, has, of course, many names; as Gill, Gill-creep-by-ground, Robin-run-in-the-hedge, Ale-hoof, Tun-hoof, Cat's-foot, and Hay-maids.

PRIMULA.

PENTANDRIA Monogynia.

GENERIC CHARACTER.

Several flowers in an umbellule, with a small involucre. Tube of the corolla cylindrical, with the mouth open. Capsule one-celled. Stigma globose.

OBSERVATIONS.

THE common Primrose* is universally known; and it is sufficiently distinguished in its wild state, by its toothed roots, its oblong wrinkled leaves unequally notched about the edge, and particularly by its having no proper stalk, but only a peduncle sustaining one flower, the corolla of which is large, salver-shaped, of a pale yellow or sulphur colour. Linneus asserts that it has a short scape, concealed under ground, but this seems very seldom to be the case. The variety which we have figured here, for we dare not in this variable genus denominate it a species, has this scape or common naked flower-stalk as distinct as in the Cowslip or Oxlip; it differs also from the common Primrose both in the number and colour of the flowers, but most remarkably in the extreme

* *Primula veris* γ. *Lin. spec.* 205.—*vulgaris.* *Huds. angl.* 83. *Sowerby Engl. bot.* 4.—*acaulis Jacq. misc.* 158. *Curtis lond. n.* 65. *Wiiber. arr.* 204.

hairiness of the scape, peduncles, and calyx. The corolla is of a most beautiful purple colour, and deserves to be introduced among other ornamental vernal flowers. It is a native of Scotland; and we owe our knowledge of it to the indefatigable researches and the benevolent communication of Mr. Dickson, whose skill in the Cryptogamia class stands at present unrivalled.

We are ready to confess that the Primrose and Cowslip are sufficiently and permanently distinct; but yet we think that the chain of nature in the connection of species, which perhaps at some future time will be unveiled, may be more clearly discerned in this genus than in most others. The Oxlip seems to form an intermediate link between the Primrose and Cowslip; and the plant which we have here figured may be considered as a link between the former of them and the Oxlip. But we have sometimes met with a Primrose in a wild state, pushing up a scape, which sustained several flowers, differing in no respect from the ordinary sort, except in this circumstance, and forming a more perceptible connection with the Oxlip. It is well known that the Primrose is the parent of the admired Polyanthus; and the florists are well acquainted with the infinite variety of which this species and the still more highly admired *Auricula* are capable by culture.

If the Primrose be not of much use in rural œconomy, it does no injury to the cultivator. It occupies not the room of more useful plants, and it proclaims the approach of the chearful and prolific season. It may supply the place of *Afarabacca* as a sternutatory; and a dram and half of the dried roots taken up in autumn will operate as a strong but safe emetic.

The common fort having been figured repeatedly, we have preferred giving this elegant variety, which has not before been presented to the public.

Mr. Curtis has figured the double Purple or Lilac Primrose in the 229th plate of his Botanical Magazine.

The second of these has been reported, we have
observed in the case of the latter, which has not before
been mentioned in the public press. It is a very
rare and valuable specimen, and is a fine example
of the genus, and is a very fine specimen of the
genus.

The third of these has been reported, we have
observed in the case of the latter, which has not before
been mentioned in the public press. It is a very
rare and valuable specimen, and is a fine example
of the genus, and is a very fine specimen of the
genus.

The fourth of these has been reported, we have
observed in the case of the latter, which has not before
been mentioned in the public press. It is a very
rare and valuable specimen, and is a fine example
of the genus, and is a very fine specimen of the
genus.

The fifth of these has been reported, we have
observed in the case of the latter, which has not before
been mentioned in the public press. It is a very
rare and valuable specimen, and is a fine example
of the genus, and is a very fine specimen of the
genus.



SPECIES.

Trifolium incarnatum. *Flesh-coloured Trefoil.*

Lin. spec. 1083. *Hall. herb.* 374. *Gouan illustr.* 51.

Baub. hist. 2. 376. *Raii hist.* 948. 1. *Ger. emac.*

1192. f. 1. *Park. theat.* 1106. f. 1.

SPECIFIC CHARACTER.

Spikes of flowers villous, oblong, leafless; leaflets roundish, crenate.

DESCRIPTION.

STALKS from a foot to eighteen inches in height. Leaves, especially the lower ones, obcordate, from the base to the middle entire, and thence to the end finely notched; they are soft and pubescent, and the upper ones are less emarginate at top. The spike of flowers is ovate-oblong, soft and silky. The calyxes are hirsute, and there is but little inequality in the teeth. The corollas are red, and have long standards. Ray says that he observed it about Naples with beautiful red flowers almost scarlet; but that about Geneva they were of a pale flesh colour.

OBSERVATIONS.

This is an annual Trefoil, and flowers with us in July. Ray says that the seed is ripe, and falls in July and August, in Italy, where it grows naturally. It is also a native of the South of France. Haller reports that it has been looked for in vain near Geneva.

We do not know that it has been, or may be, cultivated to effect.

1881

EXHIBIT

Exhibit A. The original of the

document which was found in the

drawer of the desk of the

deceased person.

EXHIBIT B.

Exhibit B. The original of the

document which was found in the

drawer of the desk of the

deceased person.

EXHIBIT C.

Exhibit C. The original of the

document which was found in the

drawer of the desk of the

deceased person.

EXHIBIT D.

Exhibit D. The original of the

document which was found in the

drawer of the desk of the

deceased person.

EXHIBIT E.

Exhibit E. The original of the

document which was found in the

drawer of the desk of the

deceased person.

EXHIBIT F.

Exhibit F. The original of the

document which was found in the

drawer of the desk of the

deceased person.





Plant. 11. Campanula & Sol. latul. - Eng. 1. - F. R. Valtier. Via Broletto, Golden Square.

MELICA.

TRIANDRIA Digynia.

GENERIC CHARACTER.

Cal. two-valved, two-flowered, with the rudiment of another between them.

SPECIES.

Melica uniflora. *Single-flowered Wood Melic-grafs.*

Retz. obf. 1. p. 10. n. 9. Curtis lond. n. 51. Wither. arr. 81.

M. nutans. Hudf. angl. 37. Lightf. scot. 95.

Gramen avenaceum, &c. Baub. pin. 10. 3. Lob. adv. alt. 465. Baub. hift. 2. 434. Park. theat. 1151. 3. Mor. hift. f. 8. t. 7. f. 49. Raii syn. 403. 6. hift. 1289. n. 4.

SPECIFIC CHARACTER.

Panicle thin, calyxes two-flowered, one flower fertile, the other neuter.

DESCRIPTION.

ROOT perennial. Stem simple, a foot and half or more in height, slender, where it is covered with the sheaths of the leaves somewhat angular, rough and striated, at bot-

tom of a dull purple colour. Leaves one at each joint, about five in number, yellowish green, flat, near two lines in breadth, terminating gradually in a point; rough if drawn backwards between the fingers; somewhat hairy on the upper surface; the edges appearing finely serrate when magnified; membrane or ligule scarcely any: an ovate acuminate leaflet, upright and coloured, rises from the fore part of the mouth of the sheath. The lower peduncles of the panicle come forth in pairs, one shorter than the other; the upper ones grow singly. Spikelets pedicelled, at first dark purple, awnless. Valves of the calyx coloured and shining; the outer ovate, concave, five-nerved, terminated by a short point; the inner less, ovate-lanceolate, three-nerved. Fertile flower sessile; the outer valve large, swelling out, with its edges embracing the inner one, which is flattish, the edges membranous and turned back, especially near the base; the neuter flower pedicelled. Nectary a very minute entire scale, at the base of the germ. Seed ovate, shining, rather large and blackish*.

OBSERVATIONS.

Retzius observes, that this species is often found with the *nutans*, and differs very much from it. In more than a thousand specimens that he examined, there was not one panicle truly simple, nor a single calyx that contained two perfect florets; and being cultivated in a garden three years, it remained unchanged.

Dr. Stokes remarks, that the habit of this is very different from that of the *nutans*; and that its bellying valves, the grizzly texture of its blossom, its ribbed calyx, and its habit,

* Curtis. Retz.

combine to point out an affinity between these two species and the *Milium effusum*.

It is not uncommon in woods and hedges ; and flowers in May, or the beginning of June.

The delicacy and striking colour of the panicle, joined to its place of growth, readily distinguish this from all other English grasses*.

It is sufficiently apparent that the Melic-grasses can never be an object of culture for meadows or pastures.

* Curtis.



Drawn, Engraved & Published Aug. 1898, by F. R. Nodding, Esq. Denver Street, Golden, Spence.

SPECIES.

Melica nutans. Mountain Melic-grass.

Lin. spec. 98. *With. arr.* 82. *Leers herborn.* n. 63.
t. 3. f. 4. *Schreb. gram.* 62. t. 6. f. 1. (2 in the
text.

M. montana. *Huds. angl.* 37.

Gr. mont. avenaceum, locustis rubris. *Bauh. pin.*
10. *prodr.* 20. *theat.* 155. *Raii hist.* 1289. *syn.*
403. 7. *Scheuch. agr.* 171. t. 3. f. 16. D. E. F.

Gr. loc. rubris. *Bauh. hist.* 2. 434. 1. *Park. theat.*
1151. 5.

SPECIFIC CHARACTER.

Petals beardless, panicle nodding, simple.

DESCRIPTION.

ROOT perennial, somewhat creeping. Stem from one to two feet in height, upright, compressed and four-cornered, having three or four knots on it; clothed at the base with alternate, sharp, brown, sheathing scales; then to above the middle with four-cornered rugged sheaths of leaves. Lower stem-leaves shorter, convex; upper slightly keeled, broadish, pubescent on the upper surface, rugged about the edges, and on a part of the keel. No proper ligule, but only a short membranaceous brown rim. Panicle pointing one way; either quite simple, resembling a raceme, with alternate flexuose pedicels, sustaining one or two pendant

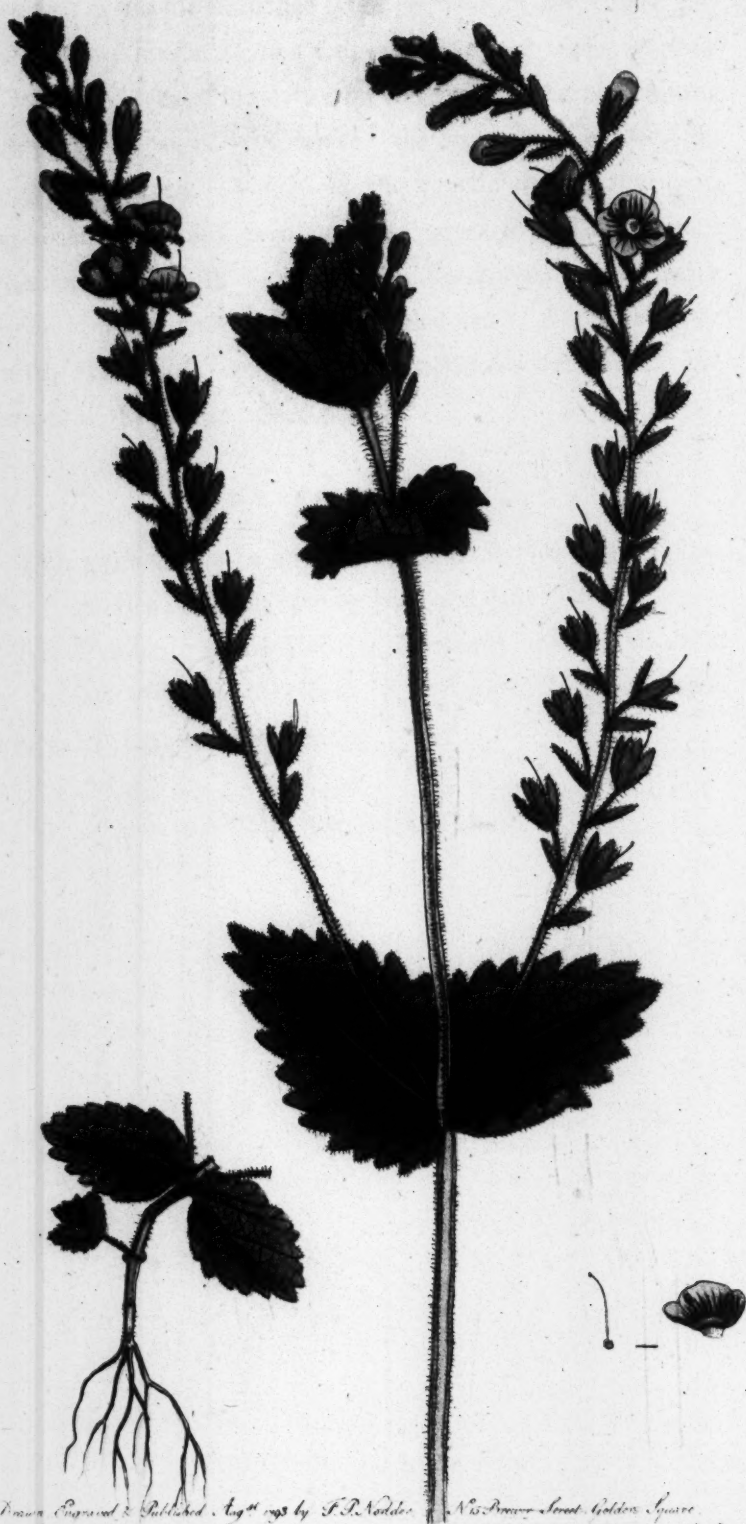
flowers, or a little branched; one or two of the lower peduncles are longer, spreading, and support three or four flowers. Valves of the calyx shorter than the corolla, blunt, dusky purple, edged with white; the outer three-nerved, the inner five-nerved. Valves of the corolla oblong, between membranaceous and cartilaginous; outer scored with about seven lines, whitish or yellowish, sometimes tinged with purple; inner much shorter, pubescent. Nectary one-leaved, horizontal, orbicular, flat, hollowed out for the insertion of the germ. Seed brown*.

OBSERVATIONS.

This grass grows in the mountainous woods of our Northern counties; and flowers in June and July.

Mr. Pennant, in his Tour to Scotland, informs us, that in the Isle of Raza, they make it into ropes for fishing nets, which last long without rotting.

* Leers & St. in With.



Drawn Engraved & Published Augth 1833 by F.D. Nodder. No. 1000. Street. Golden Square.

VERONICA.

DIANDRIA Monogynia.

GENERIC CHARACTER.

Border of the corolla divided into four parts, of which the lowest is narrower than the rest. Capsule two-celled.

SPECIES.

Veronica Chamædrys. *Wild Germander*, or *Germander Speedwell*.

Lin. spec. 17. *Huds. angl.* 6. *Wither. arr.* 13. *Curtis lond.* 1. 2. *Hall. herb. n.* 536. *Pollich. pal. n.* 16. *Leers herborn. n.* 14. *Krock. files. n.* 24. *Fl. dan. t.* 448. *Rivin. mon. t.* 94.

Chamædrys spuria, &c. *Bauh. pin.* 249. 15. *Bauh. hist.* 3. 286. 1. *Park. theat.* 107.

Ch. sylvestris. *Ger.* 530. 4. *emac.* 657. 3. *Raii hist.* 850. 3. *syn.* 281.

SPECIFIC CHARACTER.

Racemes lateral, leaves ovate, sessile, wrinkled, toothed; stems feeble, hairy on each side.

DESCRIPTION.

ROOT perennial, creeping. Stalks spreading, round, hard, ciliate with long white hairs, very thick set together, on opposite sides, branched. Leaves cordate-ovate, opposite, jaggedly toothed, sometimes very deeply, more or less hirsute, strongly veined; the lower ones smaller than the upper ones. Flowers as many as twenty in long upright racemes, opposite or single; they are on pedicels, each supported by a lanceolate bracte. Segments of the calyx four, lanceolate, unequal, hairy; these hairs, when magnified, appear terminated by minute globules. Corolla bright blue, streaked with veins of a deeper colour; the throat of this is white, as are also the base and point of the filaments, the pollen, and the base of the style; the stigma is reddish; the germ is woolly, flattish, and surrounded by a nectariferous gland at the base. Capsule exactly obcordate, a little shorter than the calyx, light brown, and slightly hairy at the edge. Seeds flat, of a yellowish brown colour*.

OBSERVATIONS.

Wild Germander is common under hedges, among bushes, in orchards, &c. It flowers in May and June, frequently in April. Many plants with less beauty than this are cultivated in our gardens. Mr. Curtis remarks, that, when growing wild, the leaves are usually sessile; but when cultivated, these become larger, and placed on footstalks of a moderate length; thus approaching to *V. montana*, which it much resembles. At the end of summer a white

* Curtis, Withering, Leers.

hairy knob is frequent on this plant ; it is the nest of some insect.

This pretty plant is neither very useful nor injurious to the husbandman. The leaves, according to Dr. Withering, are a better substitute for tea than those of *V. officinalis*, being more grateful and less astringent.

body from a fragment of the plant it is the result of some

insects.

This is the plant to which the name *W. W. W.* is given to

the *W. W. W.* The leaves are small and the flowers are

are a pale yellowish green. The fruit is a small, round, green

and is very small and is very small.



Drawn Engraved & Published Sept. 1793 by F. P. Schiller, V. S. Brewer Street, Golden Square.

PLANTAGO.

TETRANDRIA Monogynia.

GENERIC CHARACTER.

Cal. four-cleft. *Cor.* four-cleft, with a reflex border. *Stam.* very long. *Caps.* two-celled, opening horizontally.

SPECIES.

Plantago lanceolata. Ribwort plantain.

Lin. spec. 164. *Hudf. angl.* 64. *Wither. arr.* 143. *Figured in Curtis lond.* 2. 10. *Fl. dan. t.* 437. *Blackw. herb. t.* 14. *Ger. herb.* 341. 1. *emac.* 422. 1. *Park. theat.* 496. 1. *Mor. hist. f.* 8. 1. 15. *f.* 9. *Petiv. brit. t.* 4. *f.* 6. *Baub. hist.* 3. 505. 1. *Anderson's essays,* 2. p. 252. t. 15.—Described by *Haller helv. n.* 656. *Pollich. pal. n.* 161. *Leers, herb. n.* 108. *Krock. files. n.* 234. *Ray hist.* 877. 7. *Curtis, &c.*

SPECIFIC CHARACTER.

Leaves lanceolate; spike nearly ovate, naked; scape (naked stalk) angular.

DESCRIPTION.

ROOT perennial, when old appearing as if bitten off at the end. Leaves only next the root, distinguished by their five prominent ribs. Scape or flowering-stalk longer than the leaves, single, upright, angular, grooved, and slightly twisted; having one spike at top, of a blackish colour before the flowers open. This contains many (130) small flowers, crowded close together, with an ovate pointed bracte at the base of each. The capsule contains two oblong shining seeds, of an amber colour, in each cell.

OBSERVATIONS.

Nothing is more common than this Plantain in dry pastures, where it is usually left untouched by cattle; to feed small birds by the copious produce of its seeds; the leaves spread on the ground, but in thick grass they are drawn up to a considerable length, and become more succulent. It was formerly considered merely as a weed, occupying the room of grasses and other useful herbs; but it has lately been introduced into culture, under the name of *Rib-grass*, and is much recommended in common with other novelties, probably much above its deserts. In truth, we have no very high opinion of it, in comparison with grasses properly so called, and many leguminous plants. Haller, indeed, attributes, but we think without reason, the richness of the milk in the alpine dairies to this plant, and to *Alchemilla vulgaris*. Mr. Dickenfon relates, that twelve acres being sown with it, a plentiful crop was produced, but no animal would eat it*.

We must refer those who have a partiality for this herb as a food for cattle, to Mr. Young's annals, vol. 6. p. 50. &c. and to Dr. Anderson's essays, vol. 2. p. 253.

* Withering arr. 144.



Drawn, Engraved & Published by J. F. P. Volder, N^o 5 Anne Street, Golden Square.

FUMARIA.

DIADELPHIA Hexandria.

GENERIC CHARACTER.

Cal. two-leaved. *Cor.* ringent. *Filaments* two, membranaceous, with three anthers on each.

SPECIES.

Fumaria officinalis. Common Fumitory.

Lin. spec. 984. *Huds. angl.* 309. *Wither. arr.* 751.

Figured in *Curtis lond.* 2. 52. *Woodv. med. bot.*

241. t. 88. *Blackw. t.* 237. *Mill. fig. t.* 136. f.

2. *Rivin. tetr. t.* 1. *Baub. hist.* 3. 201. *Ger.*

herb. 927. 1. *emac.* 1088. 1. *Park. theat.* 287. 1.

Mor. hist. f. 3. t. 12. f. 9.—Described by *Haller*

helv. n. 346. *Pollich pal. n.* 663. *Krock. files. n.*

1139. *Ray hist.* 405. *Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Seed-vessels in racemes, each with a single seed;
stem diffused.

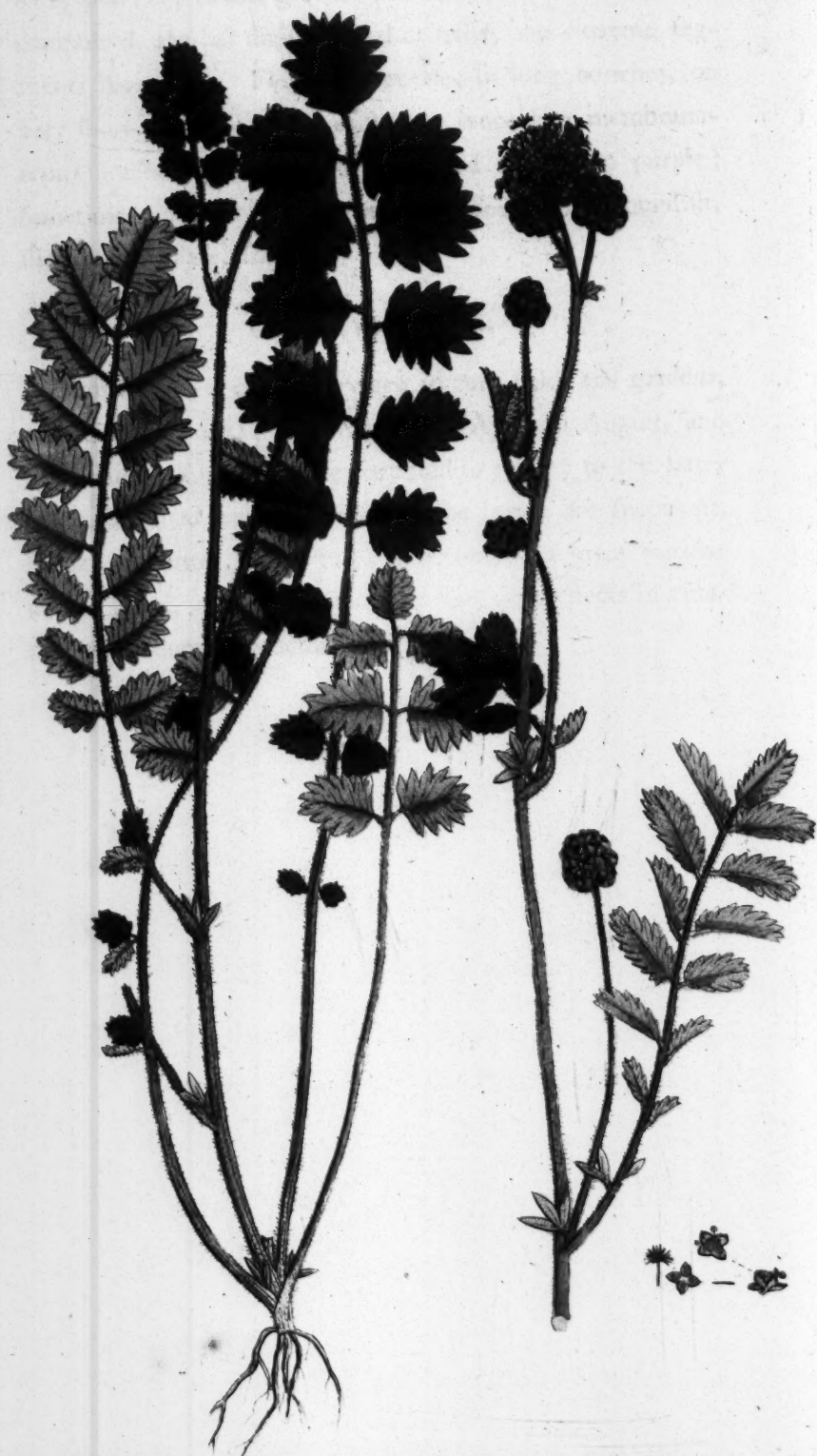
DESCRIPTION.

ROOT annual. Stems from a span to a cubit in height, smooth, angular, tender, bending, branched. Leaves alter-

nate, petioled, bluish green, smooth, somewhat fleshy, decom-
pound, the last division bifid or trifid, the extreme seg-
ments lanceolate. Flowers alternate, in long bunches, on
very short pedicels; under each is a lanceolate membrana-
ceous bracte. Corolla reddish, tipped with deep purple;
sometimes pale purple or white. Seed-vessel roundish,
slightly obcordate, smooth.

OBSERVATIONS.

Fumitory is a common weed in corn fields and gardens,
and on ditch banks; flowering from April to August, and
even later. Kine and sheep are said to eat it; to the latter
it is accounted even salubrious. The leaves are succulent,
saline, and bitter. The juice is accounted a great purifier
of the blood, and is said to have had good effects in cuta-
neous disorders approaching to leprosy.



Drawn, engraved & published Apr. 1831 by J. B. Smith, R. S. Brown, & Co. Golden Square.

POTERIUM.

MONOECIA *Polyandria.*

GENERIC CHARACTER.

MALE. *Cal.* four-leaved. *Cor.* four-parted. *Stam.*
30—40.

FEM. *Cal.* four-leaved. *Cor.* four-parted. *Pist.* 2.
Berry formed of the tube of the corolla hardened.

SPECIES.

Poterium Sanguisorba. *Common Burnet.*

Lin. spec. 1411. *Hudf. angl.* 421. *With. arr.* 1081.
Figured in *Curtis lond.* 2. 64. *Blackw. herb.* 413.
Mor. hist. f. 8. t. 18. f. 12. *Petiv. brit. t.* 4. f.
12. *Ger. herb.* 889. 1. *emac.* 1045. 1. *Park.*
theat. 582. 1.—Described by *Haller helv. n.* 706.
(*Pimpinella*) *Pollich. pal. n.* 908. *Baub. hist.* 3.
116. *Ray hist.* 401. (*Pimpinella*) *Curtis, With-*
ering, &c.

SPECIFIC CHARACTER.

Unarmed, or without thorns or prickles; stems
somewhat angular.

DESCRIPTION.

ROOT perennial. Stems nearly upright, from nine inches to a foot in height, branched, streaked, reddish, smooth, except at bottom, where it is slightly hairy. Leaves alternate, pinnate. — ~~Leaflets smooth~~, bluish underneath, with the midrib slightly hairy, deeply serrate about the edge; on the lower leaves they are roundish, and on the upper ones ovate and pointed; the lower leaflets on the same leaf are commonly alternate, and the upper ones opposite. The petiole or leaf-stalk is three-cornered, channelled, hairy and somewhat membranaceous at the base. Flowers in little roundish heads, the terminating one largest; male or barren flowers below; female or fertile flowers above, in the same head, expanding before the others, which are frequently imperfect hermaphrodites. The filaments are very long, and commonly red. The stigma is very red. Seed-vessel a juiceless berry, having four wrinkled sides, and containing two pale-brown seeds*.

OBSERVATIONS.

Burnet is common in high pastures, on a calcareous soil. It flowers the beginning of May, and sometimes in April. The leaves, when bruised, smell like cucumber, and taste something like the paring of that fruit; they are sometimes put into salads and cool tankards. Some years since Mr. Rocque attempted to introduce it as food for cattle. It has only one good quality, which is, that it continues green all winter, and affords some food early in spring, when it is commonly most wanted. But cattle are not very fond of it, nor does it yield a sufficient burden to pay the farmer for the expence of cultivating it.

* Curtis lond. & Stokes.

We refer such of our readers as desire to be acquainted with the culture and merits of Burnet, to the Museum rusticum, to the Bath memoirs, Young's annals, Anderson's essays, and Mr. Rocque's pamphlet.

There is a larger coarser sort of Burnet, (*Sanguisorba officinalis*) which, to a common eye, is very like this, except in size; but the stems of common or lesser Burnet are usually declining; the lower leaflets rounder; the heads sometimes purplish when in fruit, but never of so deep a tinge, nor shining, as in the great Burnet, which grows in moist meadows, and has only hermaphrodite flowers.

The Burnets and Burnet-Saxifrages having both had the name of *Pimpinella*, some confusion has hence arisen, which Dr. Anderson has continued, by calling Burnet *Pimpinella sylvestris*, which is the name of the great Burnet, and not of the smaller cultivated sort in Gerard's herbal.



Medica. N. 1. Brassica. Grac. folio. Squar.

SINAPIS.

TETRADYNAMIA *Siliquosa.*

SPECIES.

Sinapis alba. *White Mustard.*

Lin. spec. 933. *Huds. angl.* 298. *Wither. arr.* 713.

Figured in *Curtis lond.* 5. 46. *Black. t.* 29.

Ger. emac. 244. 4. *Petiv. brit.* 45. 10. *Baub.*

hist. 2. 856.—Described by *Hall. belv. n.* 466.

Krock. files. n. 1101. *Lightf. scot.* 361. *Ray*

hist. 802. 2. *Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Siliques or pods hispid or rough with hair, with a very long oblique swordshaped beak at the end.

DESCRIPTION.

ROOT annual. Stem strong, nearly round, upright, branched, striated or finely grooved, set with numerous stiff hairs pointing downwards, from a foot and a half to two feet in height. Leaves petioled, alternate, pale green, rough with strong hairs on both sides, all deeply indented or lobed, the terminating segment very broad and large; and frequently a pair of small wings on the petiole. The flowers are on loose

racemes or bunches at the ends of the branches, on horizontal peduncles, which have four grooves or corners, and strong hairs pointing downwards. The leaflets of the calyx spread a little at top, are yellow or sometimes purplish, and end bluntly. Petals yellow, with upright narrow claws scarcely the length of the calyx, and an inversely ovate entire border. Pods hairy, somewhat jointed, terminated by a dark green striated beak, having a few hairs on it, and knobs or protuberances where the seeds are. Seeds 3 or 4, white, yellowish, or brownish.

Ray distinguishes this species from Common Mustard* and Charlock, by the leaves being more deeply and frequently jagged or cut, the pods hairy and standing out more from the stalk; the seeds very large, so as to swell out the pod into knots; and the pod itself finishing in a broad, thin, oblong, sword-shaped point†. Haller remarks that the flower is larger than in the Common Mustard.

OBSERVATIONS.

White Mustard grows wild in corn fields, on banks, and by road sides, flowering in June, and ripening its seeds in August. Mr. Curtis observes, that it is as common in the fields about High Wycomb in Bucks, as Charlock (*Sinapis arvensis*) is in other places. We may add, that *Raphanus Raphanistrum*, figured in the next plate, is no less common in some corn fields, and that they are all frequently confounded under the name of Charlock.

White Mustard is generally cultivated in gardens as a salad herb, with cresses, radish, &c. for winter and spring use. The seeds have nearly the same properties with those of Common Mustard (*Sinapis nigra*).

* Figured in plate 51. † Syn. 295.



RAPHANUS.

TETRADYNAMIA *Siliquosa.*

GENERIC CHARACTER.

Calyx closed. *Silique* or pod protuberant, mostly jointed, columnar. *Glands* two between the shorter stamens and the pistil, and as many between the longer stamens and the calyx.

SPECIES.

Raphanus Raphanistrum. Corn, or Wild Radish.

Lin. spec. 935. *Fl. suec. n.* 612. *Huds. angl.* 289.

Wither. arr. 715. *Lightf. scot.* 362.—Figured

in *Curtis lond.* 4. 46. *Fl. dan. t.* 678. *Baub.*

hist. 2. 851. 1. *Ger. herb.* 179. 2. & 199. *emac.*

240. 1. *Park. theat.* 863. 4, 5. *Petiv. brit. t.*

46. f. 10. *Mor. hist. f.* 3. t. 13. f. 1, 2. & row

2. 4. f. 4.—Described by *Haller belv. n.* 468.

Pollich palat. n. 644. *Krock. files n.* 1104. *Ray*

hist. 805. 2. *Curtis, Withering, &c.*

SPECIFIC CHARACTER.

Siliques or pods columnar, jointed, smooth, one-celled.

DESCRIPTION.

ROOT annual. Stem from a foot to a foot and a half in height, upright, branched, rough with transparent hairs pointing backwards, often purple at bottom. Leaves petioled, pinnatifid, rough; the lowermost consisting of four or five pairs of pinnae, the uppermost of two or three; all obtusely serrate or toothed; the teeth purple at the tips. Flowers peduncled, in a loose raceme. Calyx upright, set with white hairs. Corolla varying much in colour, yellow, white, or purplish, but always with dark veins: petals inversely heart-shaped, entire, spreading; the claws a little longer than the calyx. Pods round, composed of from 3 to 6, grooved, one-celled joints, containing a single seed; ending in a linear, flat, smooth beak. Seeds roundish, ferruginous, very smooth, the size of common garden Radish. It is observed by Haller and others, that the pod has at first two cells, but from one of the seeds being always abortive, and the other filling the joint of the pod, it appears to have only one cell.

The whole plant is generally glaucous, or of a sea-green colour, and all covered with hairs, except the pods. It differs from garden Radish in having narrower pods, with the articulations more distinct. *Sinapis arvensis* or Charlock is usually one third taller than this; the stalks, which in that are finely grooved, hirsute, and commonly of a deep red colour, are in this smooth, yet hispid, and usually glaucous; Charlock has often an unbranched stem, whereas this is more frequently branched quite down to the bottom; the calyx is upright and close in this, but in that it is spreading; the corolla also of Charlock is smaller, and always yellow*.

* Curtis lond.

OBSERVATIONS.

Wild Radish is too abundant among spring corn in many places; flowering from June to August.

Linneus informs us, that in wet seasons it abounds among barley, in Sweden; and that being ground with the corn, the common people, who eat barley bread, are afflicted with violent convulsive complaints*. Monf. Villars, however, remarks, that this weed is so common in some of the cold moist vallies of Dauphiné, that it must needs make great ravages, if it were as dangerous as Linneus has represented it; and yet this spasmodic disease is unknown there†.

* Amæn. acad. 6. 430. † Histoire des plantes de Dauphiné.

CONSERVATION

With the great increase in the number of
people living in the country, the
need for conservation of the
natural resources is becoming more
urgent. In the past, the land was
used for agriculture and the
forests were cut down for
timber. But now, the land is
being used for other purposes
and the forests are being
destroyed. This is a serious
problem and it must be solved
if we are to have a better
future. We must learn to use
the land wisely and to conserve
the natural resources. This
means that we must stop cutting
down the forests and we must
take care of the land. We must
also learn to use the water
wisely and to conserve it. This
means that we must stop wasting
water and we must take care of
the rivers and lakes. We must
also learn to use the air wisely
and to conserve it. This means
that we must stop polluting the
air and we must take care of
the atmosphere. We must learn
to live in harmony with nature
and to conserve the natural
resources. This is the only way
to have a better future.



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TRIFOLIUM.

 DIADELPHIA *Decandria.*

SPECIES.

Trifolium Melilotus officinalis. *Common Melilot*
Trefoil.

Lin. spec. 1078. *Fl. suec. n.* 663. *Huds. angl.* 323.
Wither. arr. 790. *Lightf. scot.* 402.—Figured
 in *Gmel. fib.* 4. t. 7. *Riv. tetr. t.* 6. *Blackw.*
herb. t. 80. *Baub. hist.* 2. 370. *Ger. herb.* 1034.
 3, 4. *emac.* 1205. 4. *Park. theat.* 719. 1, 2.
Mor. hist. f. 2. t. 16. f. 2. row 2.—Described
 by *Haller helv. n.* 362. *Scop. carn. n.* 935.
Pollich pal. n. 697. *Krock. files. n.* 1198. *Vil-*
lars dauph. 476. *Ray hist.* 951. 2.

SPECIFIC CHARACTER.

Legumes or pods in racemes, naked, wrinkled,
 acute, having two seeds in each; stem up-
 right.

 DESCRIPTION.

ROOT annual, strong, and woody. Stem striated and
 somewhat angular, yellowish green, two or three feet high,

with spreading, alternate branches. Leaves ternate, petioled, alternate; lower leaflets oblong wedge-shaped, upper elliptical; they vary much in form, and are commonly serrate or toothed about the edge, but sometimes nearly entire. The flowers also vary in colour, but with us are almost always yellow. They grow in long reflex bunches or spikes, on short capillary pedicels, without any regular order; and have each a small awl-shaped bracte. Calyx one third of the length of the corolla, divided half way down into five, nearly equal, acute teeth. Pod very short, turgid, wrinkled transversely, pendulous, containing 1 or 2 yellowish, roundish, smooth seeds.

OBSERVATIONS.

Melilot grows wild in corn fields, pastures, and by waysides. Mr. Miller marks Cambridgeshire, and Gerard Essex, for abundance of it. There cannot be a worse weed among bread-corn, for a few of the seeds ground with it spoil the flour, by communicating their peculiarly strong taste. It flowers in June and July, and the seeds ripen with the corn.

The whole plant has a peculiar scent, which becomes stronger when it is dry. The flowers are sweet; a water distilled from them, though it has little odour in itself, improves the flavour of other substances. In medicine it was esteemed emollient and digestive, and was used in fomentations and cataplasms, particularly in blister-plasters; but it is now laid aside, as being rather acrid and irritating than emollient.

Notwithstanding its strong smell and bitter acrid taste, it does not appear to be disagreeable to any cattle, and horses

are said to be extremely fond of it. Hence it is called by some Italian writers *Trifolium caballinum*.

Mr. Ray affirms, that it is sometimes sown in England for the food of kine and horses. We do not know that it is now ever cultivated among us. Bees are very fond of the flowers.

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